

National Agriculture and Food Policy of Belize

2015 to 2030

“Agriculture – Bedrock of the Economy”

Ministry of Agriculture

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FOREWORD

Agriculture continues to be the bedrock of the economy of Belize in the form of food security, employment, and foreign exchange. This sector has also reinforced Belize's stance in being one of the few countries in the region that can boast of its food self-sufficiency status and its rising exports of key commodities. However, for Belize to continue achieving prosperity in Agriculture, greater efforts and investments have to be made in the modernization of the Agriculture and Food Sector in order to become more competitive. Consequently, the Ministry of Agriculture is pleased to present the National Agriculture and Food Policy (NAFP) 2015-2030.

The NAFP 2015-2030 is an updated policy that reflects the important developments in the global, regional, and national agricultural sector. It mainly focuses on enhancing five strategic policy objectives that will directly impact and propel small and large scale agricultural endeavors forward. The Ministry of Agriculture, using the NAFP 2015-2030 as a roadmap, will aim to increase agricultural production, productivity, competitiveness, and market opportunities. Emphasis will be placed on innovation, research and development, and partnerships to capitalize on available opportunities that have a comparative advantage. This dynamic approach will also involve the assistance of public sector agencies as well as the strong support of the private sector along the agriculture value chain to develop and ensure sustainable agricultural enterprises. Food security, sustainable development, and risk management are also areas of important priority that the Ministry will take concrete actions to advance today and in the years to come.

An equally important area that the Ministry will pursue vigorously is the strengthening of systems, processes, and structures that will facilitate the productive sector and fulfill the goal of the policy which is "To engender a conducive environment for the development of an Agriculture and Food Sector that is competitive, diversified, and sustainable; that enhances food security and nutrition; and that contributes to the achievement of the socio-economic development goals of Belize". By committing to stimulate that enabling environment for the productive sector, the ministry aims to provide technical assistance, support key infrastructural development, promote legislative revisions, and mobilize affordable credit and other support services for improved agricultural competitiveness. Also, it will aim to strengthen the domestic market and attract more local and foreign direct investments that will continue to transform agriculture into a competitive and sustainable sector. It is important to note that the NAFP provides the necessary direction to build a robust and sustainable agriculture sector, which is essential to optimize the use of the limited natural resources of our country, and it has a built-in flexibility to accommodate changes and to create responses to the needs of this dynamic sector.

Furthermore, Agriculture is vulnerable to economic shocks, diseases, natural disasters, and climate change that can create serious challenges. These challenges, no doubt, can be better confronted with

sound plans in place and strong alliances and partnerships with the private sector, NGOs, partners in development, and the invaluable assistance of donor agencies which is recommended in this NAFP.

In conclusion, the Ministry once again acknowledges and wholeheartedly commends the contribution of all stakeholders who participated in this process. This includes all those who participated in the various consultations and provided valuable recommendations as well as those that provided valuable technical assistance, in particular, the FAO, IICA, and Policy Taskforce to facilitate the realization of the NAFP 2015-2030. The Ministry looks forward to the continued support and collaboration from the private and public sectors, civil society, and partners in development for the successful implementation of this policy.

ACRONYMS

ACP	African, Caribbean and Pacific Group of States
AFDRM	Agriculture and Food Sector Disaster Risk Management
ASCG	Agriculture Sector Coordinator Group
BABCO	Belize Agri-Business Company
BAHA	Belize Agricultural Health Authority
BAPF	Belize Agricultural Producer Federation
BBS	Belize Bureau of Standards
BCCI	Belize Chamber of Commerce and Industry
BELTRAIDE	Belize Trade and Investment Development Services
BEIPU	Belize Export and Investment Promotion Unit
BEST	Belize Enterprise for Sustained Technology
BGA	Banana Growers Association
BLPA	Belize Livestock Producers Association
BMDC	Belize Marketing Development Corporation
BRADS	Belize Rural Area-based Development Strategy
BSCFA	Belize Sugar Cane Farmers Association
CA	Codex Alimentarius
CARDI	Caribbean Agricultural Research & Development Institute
CAHFSA	Caribbean Agricultural Health and Food Safety Agency
CARICOM	Caribbean Community
CARIRI	Caribbean Industrial Research Institute
CARPHA	CaribbeanPublicHealthAgency
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza
CANROP	Caribbean Network of Rural Women Producers
CCCCC	Caribbean Community Climate Change Centre
CCA	Climate Change Adaptation
CDB	Caribbean Development Bank
CEDA	Caribbean Export Development Agency
CFNI	Caribbean Food and Nutrition Institute

CGA	Citrus Growers Association
CRFM	CARICOM Regional Fisheries Mechanism
CREI	Citrus Research and Education Institute
CROSQ	CARICOM Regional Organization for Standards and Quality
CSME	CARICOM Single Market Economy
DADCs	District Agriculture Development Committee
DFC	Development Finance Corporation
DNA	Deoxyribonucleic acid
DRM	Disaster Risk Mitigation
ECADERT	Central American Strategy for Rural Development
EIA	Environmental Impact Assessment
EPZ	Export Processing Zone
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FBDG	Food-based Dietary Guidelines
FDA	Food and Drug Administration
FIVIMS	Food Insecurity & Vulnerability Information Mapping System
FNS	Food and Nutrition Security
FSMA	Food Safety Modernization Act
GCCA	Global Climate Change Alliance
GDP	Gross Domestic Product
GGA	Grain Growers Association
GHP	Good Hygiene Practices
GIs	Geographical Indicators
GMO	Genetically Modified Organism
GMP	Good Manufacturing Practices
GPS	Global Positioning System
GPRS	Growth and Poverty Reduction Strategy
GSDS	Growth and Sustainable Development Strategy
HACCP	Hazard Analysis Critical Control Point
HLB	Huánglóngbìng (Citrus Greening)
ICT	Information Communication Technology

IDB	Inter-American Development Bank
IFAD	International Fund for Agriculture Development
IFC	International Finance Corporation
IICA	Inter-American Institute for Cooperation on Agriculture
ILO	International Labor Organization
IMF	International Monetary Fund
IPPC	International Plant Protection Convention
IPRs	Intellectual Property Rights
ISO	International Organization for Standardization
ITVET	Institute for Technical and Vocational Education and Training
MED	Ministry of Economic Development
MDAs	Ministries, Departments and Agencies
MDGs	Millennium Development Goals
MEAs	Multilateral Agreement on Environment
MOEY	Ministry of Education and Youth
MNRA	Ministry of Natural Resources and Agriculture
MSME	Micro, Small and Medium Enterprise
MTDS	Medium Term Development Strategy
NAFP	National Agriculture and Food Policy
NAMIS	National Marketing Intelligence System
NCCARD	National Coordinating Committee for Agricultural R&D
NCDs	Non-Communicable Nutrition-related Diseases
NDFB	National Development Foundation of Belize
NEMO	National Emergency Management Organization
NGO	Non-governmental Organization
NPESAP	National Poverty Elimination Strategy and Action Plan
OIE	OrganizationInternationale de Epizooties
OIRSA	Organismo Internacional Regional de Sanidad Agropecuaria
PACA	Central American Agriculture Policy
PAHO	Pan American Health Organization
PCB	Pesticide Control Board
PPP	Public Private Partnership

PSA	Partial Scope Agreement
QRs	Quantitative Restrictions
R&D	Research and Development
ROC	Republic of China
SGs	Sustainable Development Goals
SHI	Sustainable Harvest International
SICA	Sistema de Integración Centro Americana
SPS	Sanitary and Phyto-sanitary
SWOT	Strength, Weakness, Opportunities, Threats
TWG	Technical Work Group
UB	University of Belize
UNDP	United Nations Development Program
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
SIRDI	Sugar Industry Research and Development Institute
WTO	World Trade Organization

EXECUTIVE SUMMARY

At the request of the Government of Belize to the United Nations Food and Agriculture Organization (FAO), this document was prepared in collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA) and the task force established by the Ministry to guide and oversee the process. It presents the elements of a Policy Incentive Framework and related Good Governance System for the Agriculture and Food Sector of Belize over a 15 year period (2015-2030). The main objective is to provide an environment that is conducive to increasing production and productivity, promoting investment, and encouraging private sector involvement in agribusiness enterprises in a manner that ensures competitiveness, quality production, trade, and sustainability. The framework, therefore, provides a platform to guide the development of actionable proposals to transform the Agriculture and Food Sector into a modern pillar of economic growth and development in the country.

Over the past several decades, the Cabinet and several Ministries of Government in Belize have identified the Agriculture and Food Sector as one of the main drivers of economic and social transformation in the country. Particularly, this sector not only forms the foundation of the Belizean economy, but it also contributes to the solutions of major national challenges such as low economic growth, high debt to GDP ratio, and the high level of unemployment. Notwithstanding, the country still continues to experience a number of challenges, including many in this sector.

Several initiatives have been implemented over the last three decades to address the weak public policy and governance system and mechanisms in the Agriculture and Food Sector of Belize. These initiatives have been aimed at creating a dynamic agriculture sector to meet the country's food needs, creating employment, and providing foreign exchange earnings. The thrust of the agricultural development strategy derived from those policy frameworks focused on promoting market and export-led growth through diversification of the traditional production base (mainly sugar), import substitution, expanded food production, and employment generation¹. While previous initiatives encompassed long term perspective and continuity, they have not been systematically implemented, nor has their performance been systematically monitored and evaluated.

As a result, the need for the development of a new policy was derived and based on several considerations. In the first instance, the last policy initiative was done in 2002; therefore, there is an urgent need for an updated, integrated, and coherent public policy and governance framework. Secondly, the Recession of 2007-2009 negatively impacted the Belizean economy particularly in the agriculture, tourism, construction, and transportation sectors. This led to stagnant tourist arrivals,

¹ National Food and Agriculture Policy 2002-2020

declining foreign investment, high levels of unemployment, and high public debts among others. Thirdly, it has been recognized that the public sector alone cannot drive the transformation of the Agriculture and Food Sector. This is due to the high debt levels and the limited skill set of the Government which highlights the need for establishing/strengthening Public-Private Partnerships (PPPs) amongst the Government, private sector, and civil society. Fourthly, the local market continues to be a significant constraint to domestic demand and cannot be a major driver of supply enhancement. This means that the external market will be the main driver of demand growth and in this context, Belize's ability to compete in those markets becomes a relevant strategic issue for policy consideration. Finally, the current framework for policy direction for the Agriculture sector is based on the Ministry of Natural Resources and Agriculture's (MNRA) Medium-Term Plan (2009-2014). However, it lacked a results framework which included key outcome and impact indicators to help prioritize interventions and measure progress and emerging impacts. All things considered, it was clear that there was the need for an updated policy incentive framework to propel the development of the Agriculture and Food Sector.

The Policy formulation process commenced in 2013 with several high level meetings between the MNRA, IICA, and FAO. In December 2013, a national consultation was organized and held with a wide cross-section of agriculture stakeholders. Through this effort, challenges, opportunities, and recommendations were established to form the framework of this policy.

With funding from the FAO, a consultant was then contracted to review the existing policy and prepare the National Agriculture and Food Policy with the support of the MNRA and IICA. Thereafter, a series of participatory consultations were held in three zones within the country: North (Corozal and Orange Walk Districts), Central (Belize and Cayo Districts), and South (Stann Creek and Toledo Districts). The participants who attended the various consultation workshops included farmers, farming associations, consumers, and international agencies. Two national workshops were also held in Orange Walk Town and Belmopan to validate the Draft Policy document.

The policy goal, objectives, and issues among others were placed within the context of the dynamic changes in the external environment, as well as in the internal environment of the sector (SWOT Analysis). The assessment of the external environment focused on potential opportunities to be exploited and the threats to be avoided and/or addressed in a global, regional, and national macroeconomic context. Likewise, the assessment of the internal environment of the Agriculture and Food Sector focused on the strengths of the sector that could be utilized to capitalize on the opportunities and mitigate the threats and the weaknesses that must be strengthened. These assessments also looked at the gaps that exist in the current policy and the issues and recommendations emanating from the national consultation platforms.

Thereafter, five pillars were identified to aid in achieving the goal, objectives, and targets of the NAFFP.

The five pillars are:

Pillar 1: Sustainable Production, Productivity and Competitiveness - This pillar targets the areas of production, productivity, and competitiveness in the sector and how these can be achieved by way of proper mechanisms to ensure quality, adopting innovative technology, and improving infrastructure among others;

Pillar 2: Market Development, Access and Penetration - This pillar focuses on the market opportunities available, but more importantly on the policy and institutional platforms that must be established to capitalize on these opportunities. It focuses on strengthening the markets for commodities produced, bought, and sold by producers through the reduction of transaction cost, managing risk, building social capital, enabling collective actions and identifying new markets;

Pillar 3: National Food and Nutrition Security and Rural Livelihoods - This is the social pillar that looks at ensuring food security for the country (e.g. increasing productivity and decreasing food imports by substituting with local products) and providing opportunities for rural people including women and youth to generate income from productive activities;

Pillar 4: Sustainable Agriculture and Risk Management - This pillar focuses on climate change adaptation, environmentally sound production practices, conservation of natural resources, and risk management mechanisms such as crop insurance. It expands on areas of variability and climate change, agro-biodiversity, clean production, and sustainable land management and other natural resources; and

Pillar 5: Governance Accountability, Transparency, and Coordination – This is a cross-cutting pillar which is a major challenge to the Agriculture and Food Sector in Belize. Existing governance systems at the district, zonal, and national levels are deficient in the level of participation, transparency, accountability, evidence-based processes, and institutional and legislative frameworks.

On this basis, the Agriculture and Food Policy will be implemented over a period of 15 years, from 2015-2030 by way of three medium-term (5 year) plans. A multi-sectoral, multi-institutional approach will be taken in which several ministries (public sector), the private sector, civil society and development partners will each have distinct roles to play. Notwithstanding, the MOA and its relevant departments will have the overall responsibility for the integration and coordination of these roles.

An Agricultural Sector Coordination Group (ASCG) will also coordinate the implementation of the policy at the national level while Technical Working groups for various thematic areas such as Governance, Production and productivity, and competitiveness among others will prepare well-structured and coherent action plans and appropriate programs for investment. They will assume the

responsibility for guiding implementation, recommending, and testing innovations within the sector and prepare various strategic documents and their implementation frameworks. Other committees at the zonal and district levels will also facilitate the implementation of the policy.

The implementation management process will comprise of the following components:

- **Targets and Phasing** – This will consist of three cycles of five-year medium-term plans that are in harmony and synchronized with the strategic plans of other ministries;
- **Inclusiveness of Actions** – This will ensure the active participation of large, medium size, and small producers, processors and trader/exporters, including women and youth in the process of agricultural development;
- **Strategic Partnership Building and Collaboration** –Effective alliances and partnerships at the national, regional, and international level will be pursued vigorously;
- **Resource Mobilization** – Every innovative way will be explored in order to have adequate resources available for the implementation of the policy, including an increase in budgetary allocation from 1.6 % to 5 % of total public budget during the roll out of the policy;
- **Information and Communication** – Agriculture data and information collection and systematization will be strengthened in order to enhance evidence-based decision making.
- **Monitoring and Evaluation** - An effective results-based evaluation and monitoring systems will be implemented to ensure results are achieved and that progress is measured along the implementation path.

Through implementation, all stakeholders in the Agriculture and Food Sector will benefit and thus, the aim to stimulate an environment conducive to the development of an Agriculture and Food sector that is competitive, diversified, and sustainable will be achieved.

CHAPTER 1: BACKGROUND AND RATIONALE

1.1 INTRODUCTION AND OVERVIEW

This document presents the elements of a Policy Incentive Framework and related Good Governance System for the Agriculture and Food Sector of Belize. Its main objective is “To provide an environment that is conducive to increasing production and productivity, promoting investment, and encouraging private sector involvement in agribusiness enterprises in a manner that ensures competitiveness, innovation, quality production, trade, and sustainability”. The framework, therefore, provides a platform to guide the development of actionable proposals to transform the Agriculture and Food Sector into a modern pillar of economic growth and development in the country, with equity.

The Agriculture and Food Sector is one of the main pillars of the Belizean economy, contributing significantly to Gross Domestic Product (GDP) (13.06%)², employment (17.9%)², income generation, and food and nutrition security. This sector is also important to macroeconomic growth and development as it is a major earner/saver of foreign exchange³.

Over the past several decades, the Cabinet and several Ministries of Government in Belize have identified the Agriculture and Food Sector as one of the main drivers of economic and social transformation in the country. The sector is also said to be a key contributor to solutions of the major national challenges of low economic growth, high debt to GDP ratio, and the high level of unemployment.

Notwithstanding, the country still continues to experience a number of challenges, including many in the Agriculture and Food Sector. These include:

- A high level of poverty, estimated at 41.3% in 2009, compared to 33.5% in 2002⁴;
- Increased threats of food insecurity and malnutrition manifested by the levels of:
 - Infant mortality (The rate of infant mortality in Belize was 16 deaths per 1,000 live births in 2012, with an under-five mortality rate of 18 deaths per 1,000 live births.)⁵;

² World Bank 2011

³ Statistical Institute of Belize LFS 2014

⁴ 2009 Country Poverty Assessment, Halcrow Group Ltd in association with Decision Economics and Penny Hope Ross working with The Belize National Assessment Team

- Prevalence of undernourishment (% of population) in Belize was last measured at 6.80 in 2011⁶;
 - Obesity/overweight rate for those older than 30 years (11% male; 24% females), which is related to high food costs and a high food import bill;⁷and
 - A rapid dietary/nutritional and epidemiological shift, resulting from changing food consumption patterns that contribute to increased levels of obesity and related non-communicable diseases such as: diabetes, hypertension, stroke, heart diseases, and cancer.
- Underdeveloped agriculture and food value chain systems;
 - Inadequate rural area and territorial development;
 - High exposure to risks and limited resilience capacity; and
 - Limited public policy and governance systems and mechanisms.

Several initiatives have been implemented over the last three decades to address the weak public policy and governance system and mechanisms in the Agriculture and Food Sector of Belize. These initiatives have been aimed at creating a dynamic agriculture sector to meet the country's food needs, creating employment, and providing foreign exchange earnings. The thrust of the agricultural development strategy derived from those policy frameworks focused on promoting market and export-led growth through diversification of the traditional production base (mainly sugar), import substitution, expanded food production, and employment generation⁸. Seven major objectives were targeted in the National Food and Agriculture Policy for 2002 to 2020 of the then Ministry of Agriculture, Fisheries & Cooperatives (MAFC), these included:

- Greater efficiency in resource allocation in the long run;
- Minimizing sharp fluctuations in market prices and reducing investment risks and uncertainty in the sector;
- Promoting specific value chains for which there are identified and growing markets;
- Achieving a higher level of self-sufficiency in food production;
- Reducing financial outlays of the Government on the sector;
- Expanding inter-sectoral linkages; and
- Increasing the country's competitiveness in regional (CARICOM and SICA) and extra-regional markets.

⁵ Commonwealth Health Link: http://www.commonwealthhealth.org/americas/belize/child_and_maternal_health_in_belize/

⁶ WHO 2012

⁷ WHO 2012

⁸ National Food and Agriculture Policy 2002-2020

The Government adopted a series of policy measures to achieve these objectives, most of which are still being implemented. These can be summarized as follows:

- A marketing and price stabilization program was implemented for rice output from southern Belize, which continues to be administered by the Belize Marketing and Development Corporation (BMDC), and involves the purchase of paddy at a guaranteed price;
- Price controls were placed on some basic foods for consumers;
- Import controls/Quantitative restrictions were implemented on a range of agricultural products to stimulate domestic production;
- Regulations were implemented in the fisheries sector for minimum size requirements, closed seasons, licensing requirements, and size of catch for certain species in order to avoid depletion of fish stocks;
- Concessional credit with favorable interest rates was made by institutions such as the Development Finance Corporation (DFC), National Development Foundation of Belize (NDFB), Belize Enterprise for Sustainable Technology (BEST), HELP-FOR-PROGRESS, Belize Livestock Producers Association (BLPA), and the Small Farmers Bank/National Bank of Belize;
- Machinery services were provided by the MAFC, particularly to develop rice production in southern Belize at below-market prices as an incentive for encouraging agricultural activities by small farmers;
- Production, pricing, and marketing arrangements for the three traditional commodities were implemented by the Sugar, Banana, and Citrus Control Boards respectively;
- A diversification program was spearheaded by Belize Agri-Business Company (BABCO) for fruit crop production (mainly papaya) and for improving quality; and by Belize Export and Investment Promotion (BEIPU) to assist exporters in penetrating external markets, both of which were financed by the United States Agency for International Development (USAID); and
- Policy support was provided to specific areas through various public sector institutions, externally financed projects, and development concessions.

In the current and operational National Food and Agricultural Policy (2002-2020) of 2003 with its key theme “NO FARMER=NO FOOD”, a major effort was proposed, “To position the producers as the fundamental base of agricultural development, considering them capable of producing, transforming, and commercializing in an environment with clear rules that are predictable and stable, and guaranteed by the state in its role as facilitator”. This Policy focuses on three main objectives (i) Satisfying the food and nutritional needs of the population; (ii) Creating employment; and (iii) Providing foreign exchange earnings. While it provides a long term perspective and endeavors to ensure continuity in the overall thrust of agricultural policies and strategies, it has not been systematically implemented, nor has its performance been systematically monitored and evaluated.

As a result, the need for the development of a new policy was established and based on several considerations. In the first instance, the last policy initiative was created in 2002; therefore, there is the urgent need for an updated, integrated, and coherent public policy and governance framework that is aimed at addressing three fundamental issues:

- Inadequate public policy incentives;
- Lack of inclusive participatory frameworks; and
- Weak public sector, private sector and civil society institutions and partnerships.

Given the multifunctional role of agriculture, it became clear that better coordination within the sector amongst key Government Ministries, universities, non-profit organizations, financial institutions, farmers, agro-processors, and agro-input suppliers among others is critical for the policy to succeed. Previous initiatives were not very strong on policy coherence, transparency, and accountability which led to sub-optimal results.

Secondly, the Recession of 2007-2009 negatively impacted the Belize economy particularly agriculture, tourism, construction, and transportation. Tourism arrivals stagnated during the period. There was a decline in foreign investment, inflows from tourism, a slow-down in remittances from abroad, low growth rates, high inflation rates, high levels of unemployment and under-employment, and high public debts. Also, increases were recorded in the cost of food and fuel, and there were unfavorable changes in the marketing arrangements for traditional agricultural and non-agricultural exports. This fallout from the global economic and financial crisis has threatened social, political, economic, and ecological initiatives in Belize. As a result, these dynamic changes in the global environment have severely impacted the national situation and clearly justify the need for an updated policy incentive framework to propel the development of the Agriculture and Food Sector.

Thirdly, taking into consideration the national debt burden of approximately 75.1 % of GDP⁹ and the limited skill-set within Government, it has been recognized that the public sector alone cannot drive the transformation of the Agriculture and Food Sector. This highlights the need for establishing/strengthening Public-Private Partnerships (PPPs) amongst the Government, private sector, and civil society.

Fourthly, while the country's population has increased by 29.8 % between 2002 and 2012, real per capita income has slowly increased by 2.7 %, albeit in a cyclical manner. The local market, therefore, continues to be a significant constraint to domestic demand and cannot be a major driver of supply

⁹IMF 2013 Article IV Consultation.

enhancement. This means that the external market will be the main driver of demand growth and in this context, Belize's ability to compete in those markets becomes a relevant strategic issue for policy consideration.

Finally, the current framework for policy direction for the Agriculture sector is based on the Ministry of Natural Resources and Agriculture's (MNRA) Medium Term Plan (2009-2014) which was prepared shortly after the current Government administration took office in March of 2008. The plan made an effort to provide a partial update to the agricultural policy of 2002 and outlined MNRA's broad strategic elements which have been guiding MNRA's interventions to date. It outlined key strategies for agricultural development, but lacked a results framework, including key outcome and impact indicators to help prioritize interventions and measure progress and emerging impacts. On this basis, in 2013 the MNRA decided that the National Food and Agricultural Policy (2002–2020) needed to be updated to better reflect the MNRA's Medium Term Plan.

It's against this background that a new approach to policy formulation was adopted in 2013. It involved: 1) Conducting stakeholders' consultations to identify key goals and constraints and to prioritize issues within the context of the priorities of government; and 2) Identifying the critical success factors to take advantage of existing and emerging opportunities for the sector in the domestic, regional, and international markets.

1.2 OVERVIEW OF THE POLICY

The policy aims to:

- Provide clear directions to Government, in the form of a road map, for the reform of the sector during the 2015-2030 period; and
- Send a strong message to industry stakeholders that there is a high level of commitment by the Government to address their concerns and to ensure growth and development in the sector.

It will be implemented under a series of three medium-term (5-year) plans that will be incorporated into MOA's work plans and programs. The policy is presented in a logical framework (Figure 1) and comprises a hierarchical structure. At the highest level is the National Agriculture and Food Policy goal, which comprises of five main pillars that will be achieved through several strategic objectives, policy measures, and actions. This framework is the road map required for strategic leadership, increased budgetary allocations, implementations, and monitoring and evaluation.

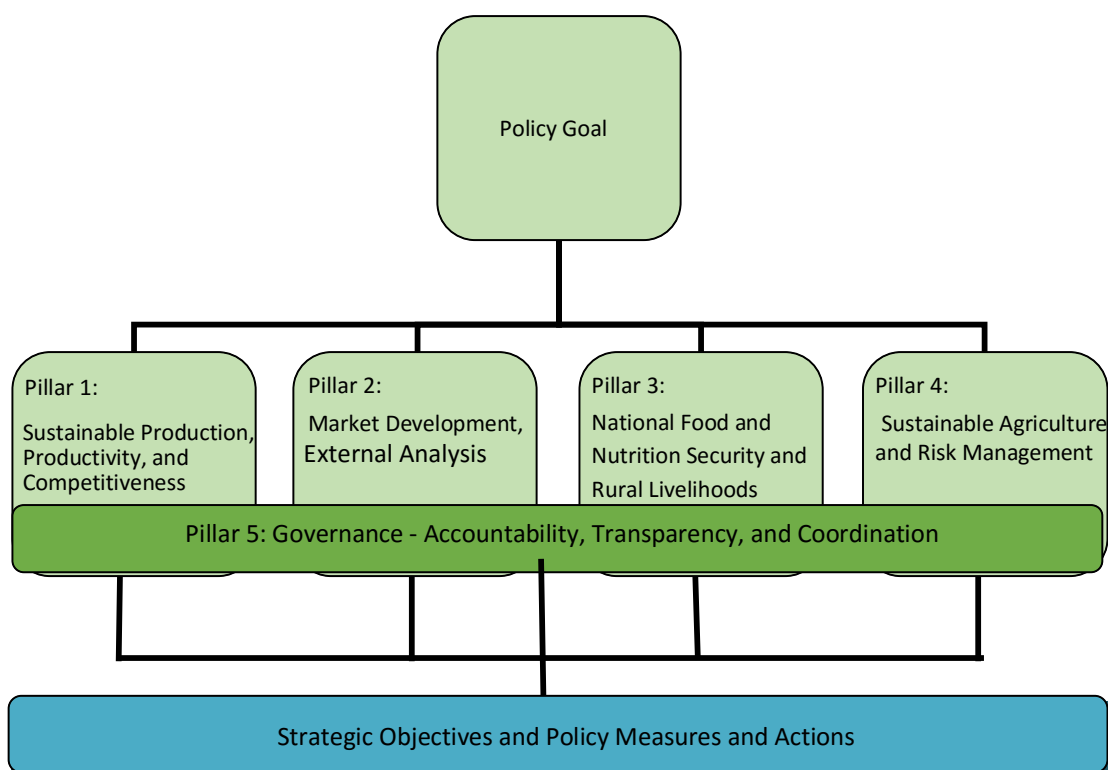
1.3 POLICY FORMULATION PROCESS

In their quest to be innovative in formulating the Agriculture and Food Policy, the Ministry of Agriculture established a Task Force to guide and oversee the elaboration process. With the technical assistance from the Food and Agriculture Organization of the United Nations (FAO) and the Inter-American Institute for Cooperation on Agriculture (IICA), the Ministry embarked on an evidence-based, participatory, and inclusive approach.

This Policy was developed with six primary considerations. These were:

- The Policy must reflect national, regional, and international best practices;
- The Policy must be demand driven, that is, reflective of the needs of the sector, stakeholders, and the current business environment in Belize, including:
 - Government Ministries
 - Private Sector (farmers, agro-producers, input suppliers, lending agencies, etc.)
 - Non-Governmental Organizations (NGOs)
 - Civil Society
 - Partners in Development and other Collaborating Agencies
- Validation workshops for Policy;
- Development of an action plan and business strategic plan that are closely linked to Government's Multi-year Programme Budgeting and M&E system;
- Development of an investment prospectus;
- Implementation of Policy through actionable and measurable proposals.

Figure 1. National Agriculture and Food Policy Framework Hierarchy



This Policy was formulated and based on the relevant views, issues, and recommendations from a series of participatory consultations held in three main zones of the country: North (Corozal and Orange Walk), Central (Cayo and Belize), and South (Stann Creek and Toledo). In this process, over 250 persons from the entire spectrum of the value chain participated. The benefit of this approach was the establishment of a basis for continued dialogue and networking between the public and private sector. It will also raise the level of expectation for the potential impact of the policy framework and create a certain level of commitment of stakeholders to support the implementation of the policy.

1.3.1 Policy Linkage to the Business Strategy (and Investment Prospectus)

While the policy will focus on a comprehensive set of components (pillars) needed to achieve the goal of competitive and sustainable growth in the agriculture sector, in the short-term, a business strategy will be developed to support implementation of Policy Pillars 1, 2 and 4 as drivers for economic growth. The business strategy will focus on the development of actionable proposals to address issues such as: incentives, taxation, infrastructure, and enforcement of standards among

others. It will also identify appropriate tools that support Public-Private Partnerships (PPPs), contract farming, clustering, and business incubators for Small and Medium Enterprises. It will also identify actors that are better positioned to provide key interventions, for example: Public sector can address farm to market roads, access to electricity, and primary irrigation infrastructure; Public-Private Partnership (PPPs) can collaborate in areas of market infrastructure, extension services, and R&D; and Private sector can pursue other areas that fall under their exclusive domain such as input supply, transport & logistics, agro-processing, packaging, and marketing among others. These targeted interventions will provide a better environment to achieve quality, consistency of supply, and competitive pricing for key agricultural commodity chains.

1.3.2 The Investment Prospectus

This instrument will be developed at a later date and will be linked to opportunities identified in the business strategy. This will require further private sector consultation and economic and financial analysis in order to identify viable investment opportunities specifically targeted towards private sector investors.

1.3.3 The focus of Food and Nutrition Security in Pillar 3

This pillar will focus on the implementation of existing Food and Nutrition Security policies, programmes, plans, and targeted projects. Increased coordination between Ministries and other relevant agencies is critical in order to achieve significant food and nutrition security. This thrust can be further strengthened through harmonization and synergies from policies such as the Food and Nutrition Security Policy (2011), the Agriculture Adaptation Strategy to Climate Change, the National Land Use Policy, the Belize Rural Areas Development Strategy (BRADS), the Draft Growth and Sustainable Development Strategy (GSDS), and the National Energy Policy among others.

Finally, the Policy Document needs to go through the following steps for its final approval:

- Sharing of the Draft Document with the relevant Ministries and institutions;
- Conducting a national validation workshop and receiving public comments and feedback;
- Preparing a final Draft Policy Document which incorporates the comments and recommendations emanating from the review process; and
- Submitting the Draft Final Document to Cabinet for approval.

1.4 THE CONTEXT

The goal, objectives, options, issues, and measures for the Agriculture and Food Sector were placed within the context of the dynamic changes in the external environment, with resultant opportunities and threats, as well as the internal environment of the sector and the manifested strengths and weaknesses (SWOT Analysis). These changes, dated from 2002, are driving the need for transformational change in the National Agriculture and Food Production sector where performance has been fluctuating with a downward tendency over the past twelve years.

The assessment of the external environment that focused on the available opportunities that can be capitalized on and the threats to be avoided or mitigated and/or are addressed in the global, regional, and national context.

Similarly the assessment of the internal environment of the sector focused on:

- The strengths of the Agriculture and Food Sector that can be utilized to capitalize on the opportunities and avoid/address the threats;
- The weaknesses that must be identified and addressed, including those related to integration and coordination with other sectors and programs;
- The gaps that exist in National Food and Agricultural Policy (2002–2020) of 2003 pertinent to the national and local environment; and
- The Policy issues discussed and recommendations emanating from the national consultation platforms established during this policy formulation process.

CHAPTER 2: THE EXTERNAL ENVIRONMENT

2.1 THE GLOBAL CONTEXT

The analysis of the global environment considered two main factors, namely, the dynamic changes taking place in the international economic environment, and Belize's membership in the various international organizations and fora.

Firstly, the international environment is still being influenced by the global financial and economic crises, which had its beginning approximately six years ago. The characteristics of this environment include low or negative economic growth, high or rising unemployment, bulging national debts, huge operating fiscal deficits, and low investments within the developed and developing countries. Available economic analyses point to the fact that growth in the global economy, estimated at 3.7 % in 2014 (IMF), continues to be sluggish with a potential negative impact in the developing world, including Belize. High food and fuel prices and the dynamic changes taking place within the international trading arrangements under the WTO are also other important features of the international environment which are critical to development in small open economies such as Belize.

Furthermore, the changes taking place within the international environment have not only impacted several global, social, and economic trends, but have presented new challenges to the Agriculture and Food Sector. These new challenges are being felt most strongly in developing countries, such as those of the CARICOM region, including Belize. Among these trends are:

- The worsening fiscal situation, including widening of the fiscal and external current account deficits and increasing public debt to GDP ratios;
- The increasing levels of poverty;
- The large and increasing number of undernourished in the world;
- The rising inequality and the associated problems of access to food by the most vulnerable populations;
- The volatility and high levels of food and input prices; significant increases occurring in the food and input prices during 2007-2008, and again from 2010;
- The increasing levels of structurally high unemployment and underemployment, especially among women and youth;

- The erosion of preferential treatments associated with various trading blocs/regimes, as a result of the globalization and trade liberalization; and
- The falling levels of overseas development assistance being directed to developing countries, including those countries of Caribbean Community (CARICOM).

In addition, there has been an increase in the frequency and intensity of natural disasters, linked to climate variability and climate change. Extreme weather events such as drought and floods are increasingly impacting the levels of production and productivity as well as the quality of primary agricultural and food products.

Aside from those dynamic changes, it is important to note that Belize is a member state of all major international organizations and has legally binding commitments under the various treaties and agreements. It also has membership in three regional agricultural institutions, CARDI, IICA, and OIRSA. Moreover, the country has been able and continues to access technical support for the development of the Agriculture and Food Sector through these organizations.

At the multilateral level, Belize also has legally binding commitments to the World Trade Organization (WTO) under the agreement on agriculture, with the related list of concessions, protocols of accession, the agreement on the implementation of health measures, the agreement on Technical Barriers to Trade, and the Agreement on intellectual property among others.

Similarly, its commitments at the United Nations are related to the International Plant Protection Convention (IPPC), Codex Alimentarius (CA), whose reference standards are based on international and national food regulations, and the code of conduct for Responsible Fisheries, which establishes principles and standards for the use of responsible practices with a view to the conservation, management, and development of fisheries. Belize also has commitments as agreed upon by members of the Organization for Animal Health (OIE) as well as those related to labor issues established in the framework of the International Labor Organization (ILO). In addition, it continues to fulfil its commitments to the Multilateral Agreements on Environment (MEAs), and the African, Caribbean and Pacific Group of States (ACP) which allows the country to access aid under various sugar adaptation initiatives funded by the European Union (EU). These various initiatives seek to reduce the adverse impact of the withdrawal of preferential trade arrangements for its agricultural products resulting from World Trade Organization (WTO) rules and changing EU Policy.

By committing to international organizations and trading regimes along with the continuing process of globalization and trade liberalization, suggests the country will have increased access to the international market place. However, its own national market will also be available to other countries and external agents. This will demand a domestic policy response that fosters the development of

agriculture and food with the capacity to survive and sustain its presence in key markets based on comparative advantage derived from competitive prices, quality production and standards, differentiated premium products, and food safety.

2.2 REGIONAL ENVIRONMENT

It is especially relevant that Belize is a member of two regional integration movements: the Caribbean Community (CARICOM) and the Central American Integration System (SICA). This places Belize in a unique position to participate in initiatives in both regions and to promote cooperation and trade within both regional expanded market systems.

While Belize, Guyana, and Suriname are considered the food basket countries of the CARICOM region, there is the need to understand that there are serious challenges to the movement of agricultural products in the region. These challenges relate to:

- The cost, quality, capacity of production;
- Inadequate transportation system;
- Trade barriers and trade restrictions;
- Non-trade barriers, differing standards, and inspection systems; and
- Bureaucratic bottlenecks, including excessive licensing requirements for traders.

In the Central American Integration System (SICA), three important policy and strategic frameworks that are relevant to Belize and its Agriculture and Food Policy are:

- **The Central American Agricultural Policy (PACA)** - which responds to assurances of the Guatemala Protocol of the General Treaty on Central American Economic Integration, and states: "In the agricultural sector, States' Parties undertake to implement gradually a Central American agricultural policy to advocate for the modernization and restructuring of the production system in order to improve efficiency and competitiveness".
- **The Central American Strategy for Rural Development 2010-2030 (ECADERT)**- which aims to promote participatory social management of public policies, territorial inclusiveness, and equity.
- **The Partial Scope Agreement (PSA)** - which is between the Government of Belize and the Government of the Republic of Guatemala was signed in July, 2006 and took effect in April, 2010. The PSA covers 150 goods, with the main agriculture and food products benefiting from this agreement being **citrus, tilapia, cattle, yellow corn, black beans, red beans, poultry, and pepper sauce**. The market offers premium prices relative to world prices.

Historically, the Agriculture and Food Sector has been the main contributor to economic development in the CARICOM. However, as shown in Annex2: Tables 1 and 2, the two main economic pillars of the Agriculture and Food Sector, sugar and bananas, have declined significantly over the last decade in most countries with the exception of Belize (bananas) and Belize, Guyana, and Jamaica (sugar).

Nevertheless, there is consensus in the CARICOM region at the highest political and economic leadership levels that future economic growth depends on the repositioning of the Agriculture and Food Sector. This understanding is based on the commitment to deepen regional integration through the CARICOM Single Market and Economy (CSME), the opportunities associated with the Regional Food and Nutrition Security (RFNS) Policy and Action Plan, the CARICOM Common Agricultural Policy, and the establishment of the Caribbean Agricultural Health and Food Safety Agency (CAHFSA).

2.3 NATIONAL MACROECONOMIC ENVIRONMENT

According to the Statistical Institute of Belize, the population of Belize was estimated at 340,792 in 2012, compared to 262,623 in 2002, an increase of 29.8 % over eleven years. The 2009 Country Poverty Assessment reported that 41.3% of the national population is classified as poor, with a 16% of households deemed extremely poor (indigent).

It is worthy to note that after relatively strong growth prior to 2007, the Belizean economy experienced significant slow-down in performance thereafter, due in large part to the global and financial crisis which impacted the key sectors of agriculture, tourism, construction, and transportation. Tourism arrivals stagnated during that period, (see Annex 3 Figure 1 and Figure 2).

The 2007 crisis triggered a decline in foreign investment and inflows from tourism and a slow-down in remittances from abroad (Annex 3 Figure 3). In fact, during the period 2008–2012, when compared with 2002–2007, the Belizean economy was characterized by low growth rates, high inflation rates, high levels of unemployment and under-employment, low investment, and high public debts varying from a high of 84.6 % of GDP (2010) to 75.6 % of GDP (2012), albeit on the decline (Annex 3 Figure 4).

A recent IMF report¹⁰ on the Belizean economy showed that Real GDP growth plummeted to 0.7% in 2013, from 4% in 2012, mainly due to continued declines in domestic oil production and weak agricultural output, especially sugarcane and citrus. It should be noted the real GDP growth rates

¹⁰IMF Executive Board Concludes 2014 Article IV Consultation with Belize Press Release No. 14/415 September 4, 2014

recorded in 2002 and 2003 were 5.1% and 9.3%, respectively. In addition, the IMF report showed that unemployment stood at 14.2% in September 2013 and is on an upward trend since it hit its lowest level in 2008. Average inflation eased to 0.5% in 2013 from 1.3% in 2012, as commodity price pressures abated. The external current account deficit widened to 4.5% of GDP in 2013 (up from 1.2% in 2012) as exports of oil and agricultural products fell sharply while imports of fuel and electricity picked up. International reserves improved to 4.7 months of imports at end-March 2014 (up from 3.3 months at the end of 2012) as it was mainly contributed by Petro Caribe financing and private inflows.

The slow-down in the performance of the Belizean economy since 2008 has resulted in the deterioration in the standard of living and unacceptably high levels of poverty, which moved from 33.5% in 2002 to 41.3% in 2009¹¹. In fact, it is unlikely that Belize will achieve half of the targets of the Millennium Development Goals by 2015, including reduction of extreme poverty, women's share of paid employment, and universal primary education¹². Overall, rural poverty rates are highest (more than 70%) in Toledo and Corozal districts¹³. Unemployment remains high at 16%, affecting particularly the young (under 25 years) with 30%, and women with 22.4%¹⁴. While the population of Belize has increased by 29.8 % during the 2002 to 2012 period, real per capita income grew by only 2.7 % over the same period under review (see Annex 3 Figure 5).

The Government of Belize offers a number of incentives to attract inward investment¹⁵. These include:

- 100% foreign ownership of land and company assets;
- Encouragement of joint ventures with local entities, and
- Special incentives for retirees.

Tax holidays and duty exemptions are granted by the Government of Belize under the Fiscal Incentives Act 1990. The tax holiday period is normally for a five-year period from the date of production. However, there is a provision which allows the Minister for Economic Development, on application by the company, to review the company's operations and renew the tax-holiday period for a further term not to exceed 10 years.

In addition, a company that is engaged in agriculture, agro-industrial products, marine culture, etc., whose operation is highly labor intensive and strictly for export, can receive a tax holiday of up to 25

¹¹MDG Goals Report and Post 2015 Agenda, Belize, September 2013.

¹²Belize Scorecard and Outlook Report 2010, UNDP, p. 16

¹³Human Development Report, Belize, 2013

¹⁴ Statistical Institute Belize, Labor Force Survey, Preliminary release.

¹⁵BELTRAIDE Investment Opportunities, 2013.

years. Incentives under this particular clause in the Act also allow exemption from income tax under the Income Tax Act, including the repatriation of profits and dividends.

The Act also allows duty exemptions to companies that are granted an Approved Enterprise Order (Development Concession) to import items into Belize free of import duty and revenue replacement duty. Such items include: building materials, plants, machinery, equipment, specialized tools, utility and transport vehicles, fixtures and fittings, office equipment and appliances, spare parts for plant, plant-related machinery, agricultural machinery, and any raw materials or other items for the sole use of the approved enterprise. The duty exemption period is for 15 years, with a potential extension of 10 years, subject to ministerial review. Several factors are considered when looking at an extension proposal, including local value addition, profitability on investment, foreign exchange earnings/savings, creation of employment, transfer of new technology, location of industry, destination of the final products, and level of investment. The Government of Belize also provides substantial benefits to investors in certain types of businesses under the Belize's Export Processing Zones (EPZs).

For Belize, the benefit of these free-trade zones is a way to encourage foreign trade and investment. Investors who take advantage of EPZs are often in the business of tourism, agriculture, mari-culture, distribution, and light industry.

There is no doubt that the macroeconomic and sector policy frameworks in Belize have considerably influenced agricultural development in Belize, principally through their effects on incentives for resource allocation within the sector and between sectors. They have also directly impacted real incomes of rural households through effects on inter-sectoral relative prices. There are five key macroeconomic policy areas in Belize that are of particular importance with respect to impact on the Agriculture and Food Sector: financial, exchange rate, trade, pricing, and fiscal policy. All five policies have had positive impacts on the development of the sector. However, at times some of the policy instruments would have had adverse effects on the Agriculture and Food Sector from the viewpoint of economic incentives. This suggests the need for greater coherency with respect to these policies.

2.4 MAIN OPPORTUNITIES AND THREATS IN THE EXTERNAL ENVIRONMENT

2.4.1 Opportunities

- Belize is strategically located in close proximity to markets of North America, South America, Central America, and the Caribbean region;
- The country has favorable trading agreements and relationships with the European Union (EU, CARIFORUM Economic Partnership Agreements), the Americas (FTA), Central America

(the Partial Scope Agreements-PSA) and the Caribbean region (Caribbean Basin Initiative and the CARICOM Single Market and Economy), which have expanded and opened up new market opportunities and market access. These trade arrangements have also presented opportunities for increased transfer of technology and inflows of foreign direct investments and joint ventures;

- Small scale family farmers now have increased access to markets at all levels for food and agricultural products, through greater linkages with the tourism and manufacturing sectors in the local market and exports to Mexico, Central America, CARICOM, and niche markets in North America and Europe;
- Internationally, food prices have become volatile with an upward tendency. While this situation represents a great concern for food and nutrition security (e.g. food riots of 2008), it also presents an opportunity for Belizean agriculture and food producers;
- There is a very favorable macroeconomic policy environment and commitment toward poverty reduction, food and nutrition security, and rural development which are high on the national agenda as per Horizon 2030, GPRS, GSDS, BRADS etc.;
- Government investment incentives are available under various government programs, including the Fiscal Incentives Program, Export Processing Zone Program, Commercial Free Zone Program, and the Qualified Retired Persons Program;
- The foreign exchange rate is stable and has been fixed (pegged) to the US dollar since 1978;
- There are no limitations on the repatriation of profits or dividends; and
- Belize as a tourist destination. The scenic beauty, local culture, Mayan history and the Meso-American Barrier reef makes it attractive for visits and presents the opportunity to expand agro-eco-tourism linkages.

2.4.2 Threats

- The processes of globalization and trade liberalization have eroded Belize's preferences in some markets, which creates an uneven playing field for production and trade;
- High levels of competition in the regional and international markets;
- High and ever changing sanitary and phytosanitary requirements, resulting from increased demands for quality and safe foods;
- Non-tariff barriers, including excessive legal and administrative requirements;
- There is a great push for the use of GMOs and agro-chemicals without adequately analyzing the social and environmental risks;
- Weak Macroeconomic situation of the country, including the high debt to GDP ratio has resulted in limited fiscal increased support for relevant programs;

- Slow growth in real per capita income;
- Poor quality and high cost of regional and international transportation;
- Inadequate programs to strengthen relevant organizations;
- Youths' lack of interest in agriculture; and
- The sector's high level of exposure to risks (natural disasters, climate variability and economic shocks).

CHAPTER 3: THE INTERNAL ENVIRONMENT – AGRICULTURE AND FOOD SECTOR

3.1 THE ROLE OF THE AGRICULTURE AND FOOD SECTOR IN THE NATIONAL ECONOMY

The Agriculture and Food Sector remains one of the main pillars of the Belizean economy and is considered by the Government to be one of the main engines of economic growth. While tourism has recently become an important contributor to the Gross Domestic Product (GDP), the Agriculture and Food Sector continues to play an important part in the economic life of the country through its contribution to GDP, employment, and foreign exchange earnings. This contribution has been enhanced more recently through increased linkages with the manufacturing, health, and tourism sectors. Most importantly, agriculture remains the main livelihood of many rural communities across the country and is an important base to alleviate poverty, therefore, the need to rebuild and modernize agriculture. **The World Bank estimates that agriculture is the most important economic sector in Belize in terms of income generation, employment, food security, and poverty alleviation.**¹⁶

From SIB National Accounts data (2002-2012), the growth of the Agriculture and Food Sector of Belize over the last eleven years (2002-2012) has fluctuated greatly with an upward trend. Real agricultural GDP moved from BZ\$173.1 million in 2002 to BZ\$244.6 million in 2012. This is an increase of 41.3 % or an equivalent average growth rate of 3.2%. During the period under review the contribution of agriculture to GDP, in real terms, ranges from a high of 15.28 % in 2005 to a low of 10.46% recorded in 2011. It should be noted that while the country has recorded deficits on merchandise trade over the period under review, the Agriculture and Food Sector has consistently recorded surpluses on trade for the same period under review.

To a large extent, the economy of Belize has been based mainly on exports of traditional commodities with access to preferential markets in the sugar, citrus, and banana sector. The sector also accounts for 65% of Belize's total exports and another 10% if aquaculture is added, which makes the aquaculture sub-sector a significant contributor to the Belizean economy as well.

The main exports are still sugar, bananas, citrus, fish products (mainly lobster), and timber. Grains and papayas constitute the non-traditional commodities, while dairy farming is also growing in importance along with the livestock industry overall¹⁷. The agricultural products which are considered

¹⁶ Report #466 March 2002 – Poverty Assessment Report – Belize submit

¹⁷ Discussion Paper No. IDB-DP-162 Belize: A private sector Assessment

sensitive (rice, beans, potatoes, onions, beef, pork, dairy, poultry, eggs) and intended basically for internal consumption, are gradually increasing their integration into the export market.

In summary, the picture of Belize's agricultural exports is characterized by:

- A high degree of concentration in five groups of products (citrus products, bananas, sugar, marine products, and papayas); and
- A lack of dynamism in these products, with the exception of papaya and aquaculture (shrimps).

Clearly, the agriculture and food sector needs new export success stories, such as with its papayas, or a larger array of more modest gainers.

In order to achieve greater export market growth the sector must address issues related to:

- Products along selective value chains, technologies of production, and marketing arrangements that can bring small-and medium scale producers into the circle of competitiveness and generate more income per acre for them;
- Enhanced development of food processing and other value added; and
- Promotion of products whose export success does not depend on preferential trade agreements.

The Agriculture and Food Sector has also played a significant role in foreign exchange savings, with the value of domestic production directed to the local market estimated at BZ\$615 million in 2013¹⁸. Belize has become self-sufficient in a number of food products over the last two decades, namely poultry meat, eggs, beef, pork, beans, rice and corn. The country is now exporting some of these products to countries in the CARICOM and SICA regions.

It is estimated that as recent as 2013, Belize's agricultural industries utilized an estimated BZ\$50 million of inputs to produce their outputs. These industries include transport, fuel, fertilizer, financial, and storage industries, which support urban and rural economies through the provision of jobs and injection of money back into the community. These agricultural industries support and underpin an array of secondary industries across the food supply chain. These industries include first-stage and second-stage food and beverage manufacturing, wholesale and retail distributors, and food services industries.

18 Ministry of Natural Resources and Agriculture, District Agriculture Office Report, 2013.

Belizean businesses of all sizes process and add value to several primary commodities across the food supply chain. Through a combination of technology, skills, and knowledge, they produce products that meet market expectations. In total, it is estimated that these secondary industries contribute over \$25 million to the economy. They represent a significant market outlet for primary produce and provide support to the development of rural and regional economies. In fact, the bulk of manufacturing activities (which constitutes 20.7 % of GDP) is based on input from the primary agricultural sub-sector – e.g. sugar, citrus concentrate, animal feed, jams, jellies, chips, juices, milk, ice cream, sausages, etc.).

The Agriculture and Food Sector is a major contributor to the tourism sector, mainly through sales of produce to hotels and restaurants. In addition, Agriculture continues to provide more than 18% of formal employment and more than 70% of informal employment in the rural areas¹⁹.

The major obstacle to national development in Belize continues to be poverty, with the country currently faced with an unacceptable high level of poverty (41.3% in 2009)²⁰. The poverty situation has worsened following the recent, but prolonged global economic and financial crisis and the consequential adjustments in the global markets which have affected agricultural exports. In addition, income inequality in Belize is among the most unequal in the Caribbean. This is also expressed in inequality in consumption where the increase in poverty has magnified the challenge of enhancing food and nutrition security. The high level of poverty has also resulted in limited purchasing power, which accounts for 41.3% of the population, and the consequential stagnation in local domestic demand for agriculture and food products. The high level of poverty, therefore, continues to be a significant constraint to the expansion of the local market. The implication is that the external market will have to be the main driver of demand growth. The issue of Belize's ability to compete in those markets then becomes one of strategic importance.

3.2 PRODUCTION SYSTEMS, PRODUCTION, AND PRODUCTIVITY ISSUES

The agricultural production systems in Belize can be considered bimodal with small and commercial producers and can be categorized in four main types:

- Traditional (including slash and burn (Milpa)) farms
- Small commercial farms for local markets
- Small commercial farms for export markets
- Large commercial farms

¹⁹ LFS 2013 SIB

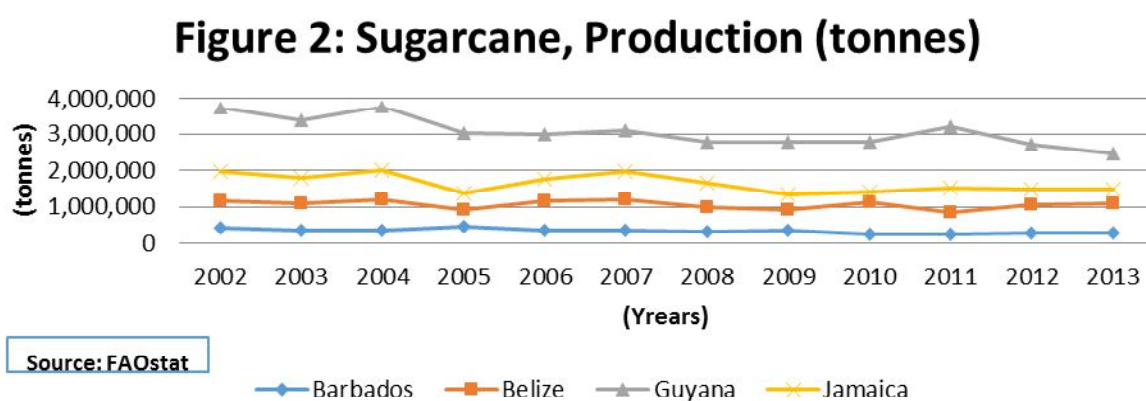
²⁰ Country Poverty Assessment 2009

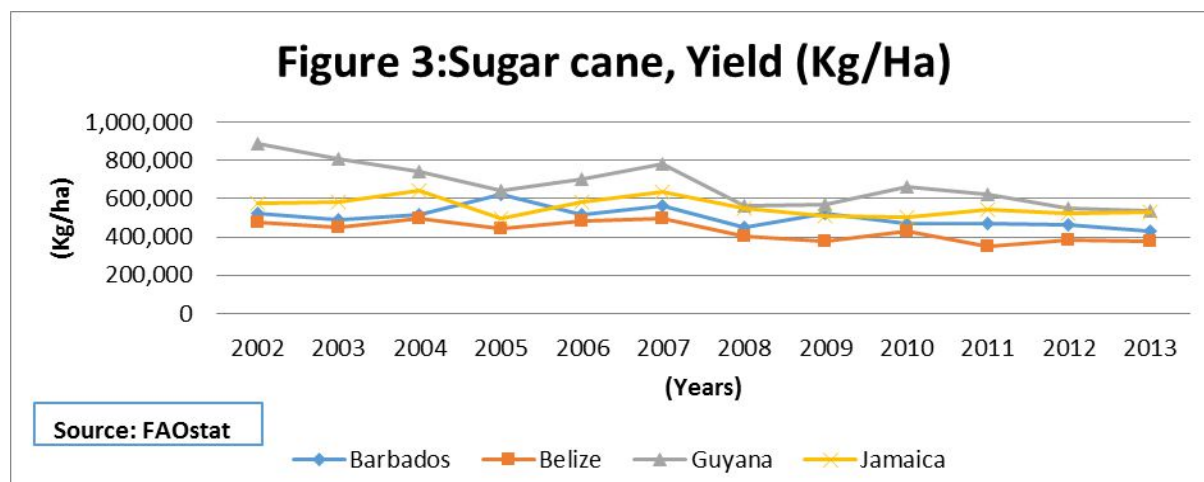
There is a great diversity of enterprises and ranges of scale in Belizean farming systems. Even at the level of the individual farm unit, farmers typically cultivate two or more crops in diverse mixtures that vary across soil type, topography, and distance from home. Annex 1 further elaborates these systems.

3.2.1 Traditional Commodities

The main traditional commodities produced are sugar and bananas, citrus, and fish products (mainly lobster). Sugar cane production in Belize has fluctuated with a downward tendency over the period under review (2002-2013), with productivity (tonnes/hectare) recording a decline. Comparative analyses of sugar cane production and productivity for Barbados, Belize, Guyana, and Jamaica are presented in Figures 2 and 3, respectively.

Comparatively, Belize has the lowest level field productivity and reported less than optimal quality of sugar cane. This low productivity is linked to several inter-related problems, including inadequate drainage and insufficient diseases and pest management. The diseases and pests situation is exacerbated by a lack of training of farmers and technical personnel as well as lack of adequate resources to create and sustain an integrated control system. The sugar industry is also faced with high transportation cost and sub-standard road network.





Figures 4 and 5 respectively shows a comparative analyses for banana production as well as for productivity for Belize and neighboring banana producing countries (Costa Rica, Guatemala, Honduras, and St. Lucia). It can be gleaned from the Figures that of the countries compared, Belize has the second to lowest levels of production and productivity. Banana production has stagnated since 2003, when output recorded was 76,000 metric tons, which mirrors the output recorded in 2012. There are several reasons why growth in the banana industry has stagnated and productivity has declined.

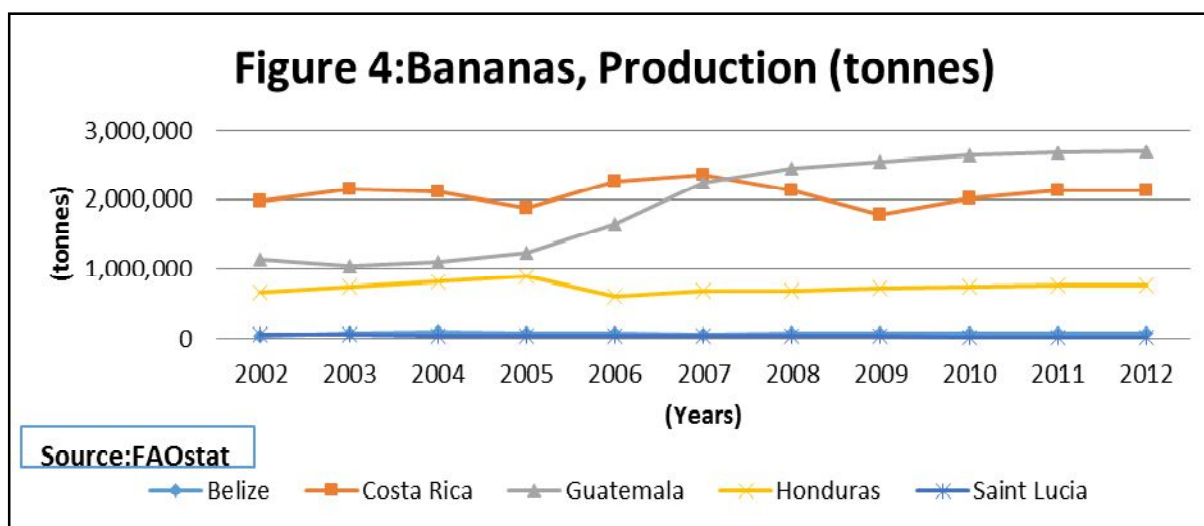
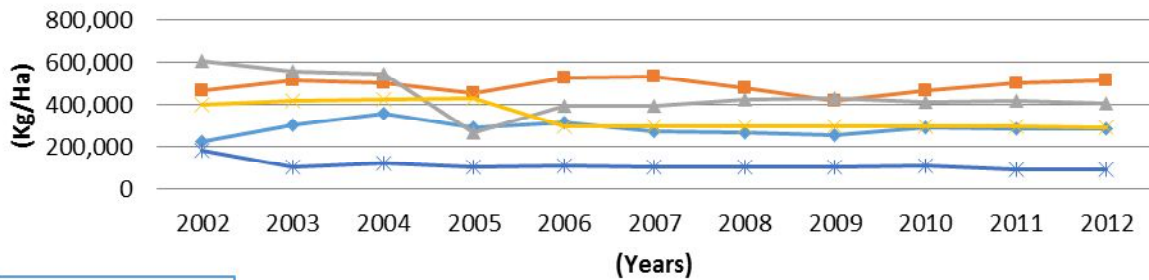


Figure 5: Bananas, Yield (Kg/Ha)



Source: FAOstat

—●— Belize —■— Costa Rica —▲— Guatemala —✱— Honduras —✱— Saint Lucia

In the first instance, the preferential treatment enjoyed by Belize in the European market has eroded over the years, and the situation has created uncertainty in the market for local banana growers.

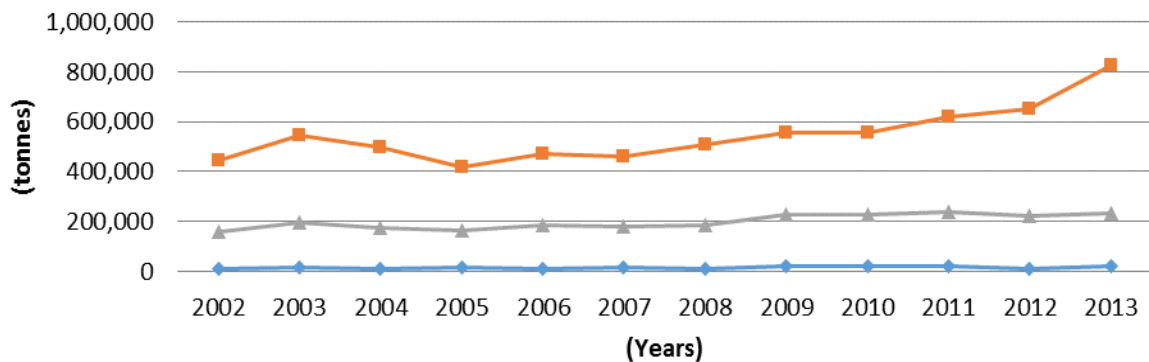
Secondly, the Banana Growers Association (BGA) is the entity charged with the development of the banana industry in Belize. Unfortunately, the financial resources of the BGA, which come from a Cess on each box of banana exported, are insufficient to cover the cost of running the BGA and fund its agro-environmental monitoring activities. BGA also does not have the capacity or the inclination to do on-farm research and extension.

Finally, there are deficiencies in agronomic practices. There is currently no capacity in the plant nutrition department to interpret soil and leaf analysis and to advise farmers accordingly. Additionally, the Sigatoka spray control program is also under funded.

It should be noted that rice paddy production in Belize is on an upward trend, moving from 12,500 metric tons in 2002 to 20,505 metric tons in 2013, although with some fluctuations.

Comparative analyses were also conducted for rice paddy production and productivity for Belize and two neighboring CARICOM countries: Guyana and Suriname. The results of these analyses, presented in Figures 6 and 7, show that while Belize has the lowest level of production it has recorded the highest level of paddy productivity (tons per hectare).

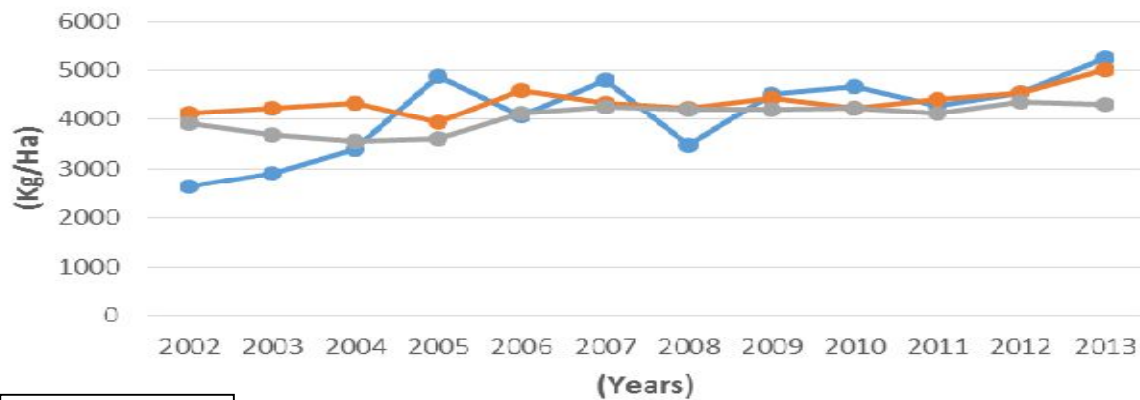
Figure 6: Rice, Paddy Production (tonnes)



Source: FAOstat

—●— Belize —■— Guyana —▲— Suriname

Figure 7: Rice, Paddy Yield (Kg/Ha)



Source: FAOstat

—●— Belize —■— Guyana —●— Suriname

Citrus cultivation is prevalent among the small and large commercial farmers, with citrus exports representing a significant part of total agricultural exports. Citrus production has increased during the period under review from 5.572 million pounds in 2002 to 6.972 million pounds in 2012, a 25 % increase. Acreages under production expanded during the period under review by 32.3 %.

3.2.2 Non-Traditional Commodities

The country is now engaged in the production of a range of non-traditional commodities, several of which have entered the export market. Figures 8 and 9 present outputs for some of the most important grains and legumes. Included in this category are yellow corn, white corn, beans (black beans and red kidney beans), cowpeas, soya-bean, and sorghum. Other important non-traditional commodities are hot peppers, cassava, plantains, cocoa, papaya, peanuts, and a range of vegetables. Cattle and aquaculture production have also become important export industries.

The livestock sub-sector share of real agriculture GDP (comprised of agriculture, forestry and fishing) in 2013 was estimated at 12.2 % as compared to 15.0 % in 2002²¹. The cattle population of Belize is estimated at approximately 98,500 heads²². In 2013, approximately 9,050 heads were slaughtered producing 4.0734 million lbs. of meat (dress weight) as compared to the 9.076 heads slaughtered in 2002 that produced 4.066 million lbs. of meat²³.

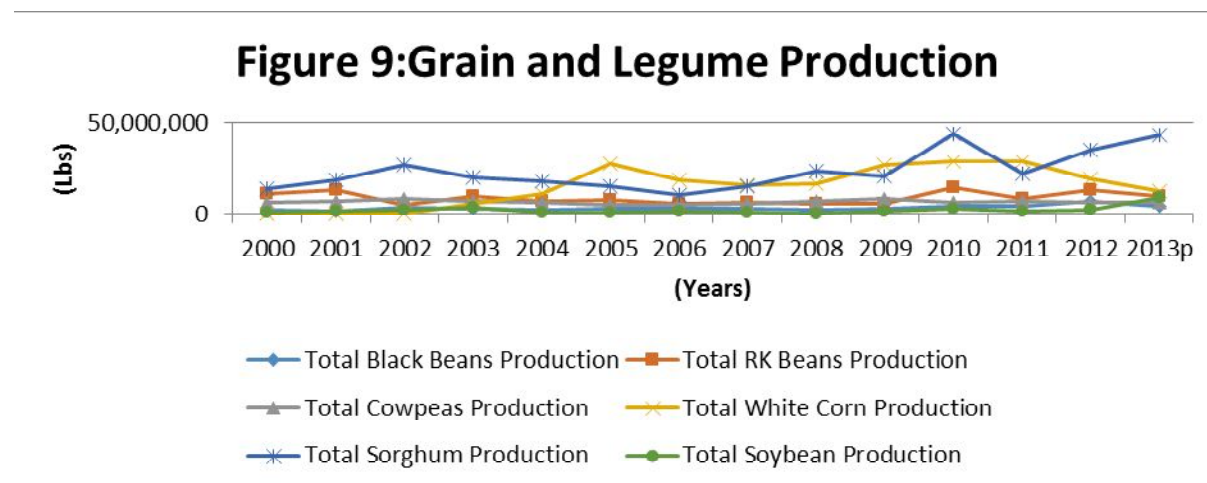
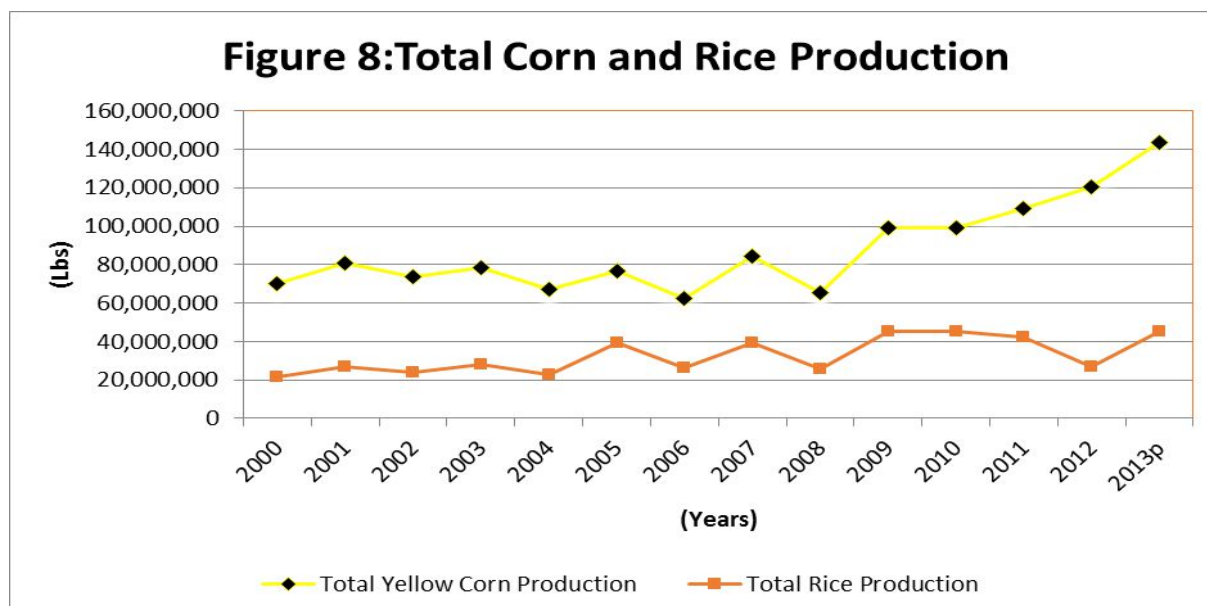
The fishing sub-sector in 2013 was estimated at 33.2 % of real agriculture GDP as compared to 24.7 % of real agriculture GDP in 2002. Also, in 2013, approximately 16.4 million lbs. of marine products, valued at BZ\$109.3 million as compared to the 7.6 million lbs. valued at BZ\$ 69.8 million exported in 2002. The value of shrimp export was BZ\$ 82.8 million in 2013 or approximately 76 % of total value of marine exports²⁴.

²¹ SIB GDP 2013

²² BLPA "Cattle Sweep" 2013 Report

²³ MNRA Production Statistic 2013

²⁴ SIB GDP 2013



Source for Fig 8 & Fig 9: MNRA Statistical Unit Production Statistics 2013

3.3 MAIN STRENGTHS AND WEAKNESSES WITHIN THE AGRICULTURE AND FOOD SECTOR

3.3.1 Strengths

- The agriculture and food sector serves as the foundation of the Belizean economy and continues to be the platform propelling the local productive sectors;

- The country has a reasonable amount of land of over 1.998 million acres (38 % of the total land area) that is well-suited to agriculture²⁵. The geographical position, its coasts and its ecosystems provide numerous and varied microclimates. These reasons explain the country's natural wealth, both in species and ecosystems (agro-bio diversity), which allows greater diversification of agricultural activities;
- Investment incentive frameworks, public policies, and governance systems and mechanisms are in place to support the development of agriculture and food sector, albeit inadequate;
- There is a very heavy focus on the production of the traditional commodities of sugar cane, banana, rice, and citrus;
- There is also significant room for investment and growth in areas outside of the traditional commodities. Existing fruit production could be expanded, and there are opportunities for production of other non-traditional products, such as corn, black-eyed peas and kidney beans, livestock production, and aquaculture;
- The country is well positioned for organic and eco-labelled production;
- There is a core of highly trained, skilled, strongly motivated, and committed workers;
- There is a large labor force that is supplemented by migrant laborers from neighboring countries such as El Salvador and Guatemala;
- Process of strengthening extension, research and education, and the core components of a modern agriculture, has started among the local actors with concerted support of the international partners;
- Rudimentary platform exists for the utilization of information communication technology as a tool in extension service delivery and more so for market information management;
- The international development partners have provided and continue to provide support to the sector. They understand the importance of agriculture for achieving the MDGs, developing the rural communities, and responding to climate change;
- There is increased appreciation of the need to establish alliances and partnerships among the MDAs, NGOs, and private sectors, which is essential for ensuring viable and sustainable agricultural, food, and rural sectors; and
- There are some examples of successful management of agricultural enterprises. For example, valuable lessons can be learnt from the experience of Belizean Mennonites in terms of organization, production, processing, marketing, and exporting of agricultural and food products, i.e. validated principles and approaches for success.

²⁵ NRI/LIC- Belize Agricultural Potential Map

Weaknesses

- Inadequate and incoherent investment incentives and public policies and weak governance systems and accountability mechanisms to propel the sector to another level;
- Over-regulation and excessive taxation within the sector, combined with selective and inconsistent enforcement of regulations;
- Limited mechanisms in place that allows active stakeholders participation, organization, and influence in the sector development;
- Information platform to facilitate trade negotiation and trade development are deficient;
- Marketing and market information institutional mechanisms and information systems are deficient;
- Limited local market opportunities;
- Inadequate inter-sectoral linkages and synergies;
- Limited affordable and accessible credit and financing as an essential part of development of the sector;
- Limited policies and enforcement of regulations that deter land speculation as well as limited zoning of land according to its suitability for agriculture;
- Inadequate land and water management systems;
- Poor infrastructure, including drainage and irrigation and access roads;
- High production costs;
- Poor research and development frameworks;
- Deficient extension services and other linkages;
- Limited technologies and lack of promotion of modern and appropriate technologies that increase the competitiveness of producers;
- Praedial larceny widespread and is a major and growing disincentive to investment in the sector;
- Limited resilience capacity to combat natural disaster, economic shocks, the high levels of pest and diseases and the ever growing threats from invasive species; and
- Limited grades and standards, certifications, and risks transfer mechanisms such as crop insurance.

A more detailed explanation of these issues, which were raised at the various consultations, can be found in Annex 4.

CHAPTER 4: STRATEGIC ANALYSIS AND EVALUATION OF POLICY OPTIONS

4.1 OVERVIEW

The situational analysis has identified some fundamental trends at the global, regional, and national levels that are affecting agriculture and food in Belize and which are expected to continue in the coming decade. These main challenges are summarized as follows:

- The high and increasing poverty;
- The prospect of rising inequality and problems of access to food by the most vulnerable populations;
- The steady decline in the competitiveness of the country's traditional agricultural products;
- The high and rising food import bill;
- The high levels of unemployment, especially among women and youth; and
- The increased scarcity of natural resources worsened by natural disasters and climate change.

These challenges are being compounded by the global financial and economic instabilities that has led to volatility in commodity export prices, slow-down in export earnings, declines in tourism inflows, and direct foreign investment, and an increase in the food import bill. This has adversely affected employment, aggravated the general food and nutrition security situation, and exacerbated the levels of poverty, inequity, and hunger and malnutrition in Belize.

Notwithstanding, the international, regional, and national dynamics and imperatives have given rise to opportunities for the development of Agriculture and Food Sector in the country. Belize is in urgent need of a more robust public policy and governance framework in order to exploit those opportunities.

During the policy review and prioritization process the select group of stakeholders identified key priority issues that should be addressed by the Agriculture and Food Policy framework. In fact, in the country-wide consultation process, stakeholders were very clear on what they wanted from this policy. They requested that the policy should:

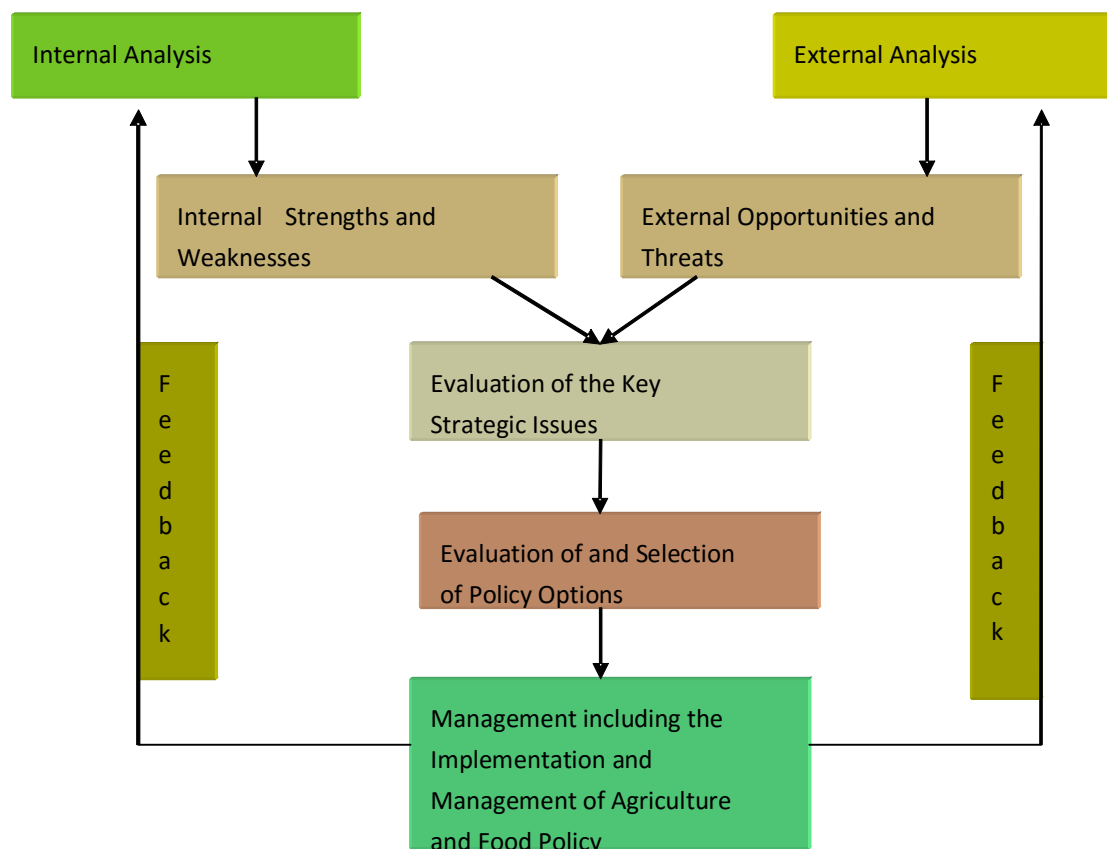
- Have a demand driven, business and market led approach that emphasizes tripartite (private, public, and civil society/community organization) partnership along the value chain;

- Be able to recognize and ensure the participation of stakeholders given the importance of agricultural trade policy/export strategy, on-going trade negotiations, and economic integration efforts;
- Promote improved information, technology, and knowledge management systems as critical catalysts to affect change and ensure sustainability;
- Pursue competitiveness as the basis for the creation, accessing, and maintenance of market opportunities and income generation;
- Ensure it is practical and facilitates operationalization, implementation, and monitoring of the policy and strategy;
- Ensure coordination with other ministries and ensure dialogue with them;
- Ensure an enabling environment to reduce restrictions on sector growth (e.g. high taxation, unduly high standards, inadequate infrastructure, etc. are addressed); and
- Ensure accountability and reporting.

4.2 FRAMEWORK FOR ANALYSIS AND EVALUATION

The framework and process for the formulation of the National Agriculture and Food Policy is presented on the flow chart of Figure 10 below. The evaluation of the strengths and weaknesses of the Agriculture and Food Sector, which includes the opportunities to be exploited and the threats to be avoided, have provided valuable insights and the measures needed to solve/address existing and/or potential problems.

Figure 10: Process of Policy Formulation – SWOT Analysis



The critical issue for policy formulation is to ensure that the measures that are developed are necessary and sufficient to allow Belize to:

- Utilize the strengths of the Agriculture and Food Sector to take advantage of the opportunities available;
- Use the strengths to reduce the impact of threats;
- Overcome the weaknesses that have prevented the sector from taking advantage of the opportunities; and
- Address the weaknesses that would make the threats a reality.

The broad-based opportunities and threats derived from the external environment analysis and the strengths and weaknesses identified from the analysis of the internal Agriculture and Food Sector are broadly characterized and presented in Table 1. An integrated analysis and synthesis of the external and internal factors have resulted in the broad elements of Belize's Public Policy Framework for the Agriculture and Food sector and is also presented in Table 1.

Table 1: Broad Policy Elements Derived from Integrated SWOT Framework

Internal Factors External Factors	Major Strengths (S) S1: Agriculture and food sector is the foundation of the Belizean economy. S2: Ample supply of unused land well-suited to agriculture. S3: Process of strengthening extension, research and education has started. S4: Significant room for investment and growth in non-traditional areas. S5: Strong support from international partners, private sector, and civil society S6: Great enterprise management success story	Major Weaknesses (W) W1: Inadequate and incoherent policy incentive frameworks. W2: Weak governance systems and mechanisms. W3: Limited local market opportunities. W4: Inadequate inter-sectoral linkages and value additions. W5: Limited affordable and accessible credit and financing. W6: Poor infrastructure, including SPS. W7: Low levels of productivity and high production costs. W8: Poor research and deficient extension services. W9: Limited technologies and usage. W10: Limited resilience capacity to risks and natural disasters
	Opportunities (O) O1: Strategically located in close proximity to the markets of the Americas. O2: Favorable trading agreements and relationships. O3: Favorable Macroeconomic policies. O4: Investment incentives are available under various government programs. O5: Scope for strengthening inter-sectoral linkages (tourism, agriculture, health, etc.)	Integration and Synthesis of Strategic Issues
Threats (T) T1: Eroded Belize preferences in some markets. T2: High levels of competition in all markets. T3: High demands for quality and safe foods. T4: Non-tariff barriers. T5: Push for the use of GMOs and agro-chemicals without adequately analyzing the social and environmental risks. T6: High levels of poverty and food and nutrition insecurity. T7: Limited financial and human resources to support relevant programs. T8: Slow growth in real per capita income. T9: Poor quality and high cost of regional and international transportation. T10: Youth - lack of interest in agriculture.		Broad Policy Elements PE1: Increase production and improve productivity and competitiveness by: Improving investment incentive framework, Developing and implementing competitive industry plans, Promoting innovation and technologies, Enhancing education and training, Enhancing research and extension services, Developing infrastructure, and Improving credit and finance system. PE2: Improve marketing platform and promote market development, access and penetration. PE3: Improve the food and nutrition security situation and rural livelihoods PE4: Promote sustainable management systems and risk management. PE5: Promote good governance systems and mechanisms.

CHAPTER 5: NATIONAL AGRICULTURE AND FOOD POLICY FRAMEWORK

5.1 SCOPE OF THE POLICY

The scope of the policy defines thematic areas, provisions, beneficiaries, and a timeframe for action.

Thematic Scope: For the purposes of this policy, agriculture covers all activities involved in primary production, processing and marketing of food, and agricultural products based on the concept of the agricultural-trade chain. Although not classified as agriculture, the policy also provides the overarching framework for the development of the aquaculture industry.

Provisions: The policy contains provisions that will:

- Ensure greater efficiency in the structure and institutional management of the Agriculture and Food Sector through well-defined roles of regulatory standards and promotional bodies and enhance collaboration among key players in the industry;
- Establish clear public policy, trade, and investment incentives for production, processing, utilization, and marketing of agriculture and food products;
- Ensure growth and development in the Agriculture and Food Sector through increased production and improved productivity, food and nutrition security, improved farmer's/processor's income, employment creation, and attract private sector participation in the industry;
- Ensure expanded market access and trade in domestic and external markets; and
- Facilitate the delivery of quality, safe, and accessible products to consumers while at the same time ensuring sustainable use of natural resources.

Timeframe: The policy will be implemented over a period of 15 years, from 2015-2030. The period will then be divided into a series of three medium-term (5-year) plans that will be incorporated into the (MOA) work plans, programs, and projects.

Beneficiaries: The beneficiaries of the policy include farmers, agribusiness enterprises, agro-processors, input suppliers, financial service providers, general service providers, consumers, the rural population, technical and financial cooperation organizations, and the Government of Belize.

5.2 GUIDING PRINCIPLES

The policy is guided by the following principles:

Consistency: The National Agriculture and Food Policy (NAFP) is consistent with the national legal framework underpinning the establishment of MOA and associated Declarations and UN Conventions, to which Belize is a signatory. The NAFP is also consistent with other macro-level national policies and complements their efforts to enhance economic growth and development.

Complementarity: National policies and priorities are also integral to the formulation of the NAFP.

Partnership and Solidarity: The public and private sectors and civil society are critical to the formulation and implementation of the policy. The public sector will provide the enabling environment necessary for growth and development of the sector as a whole, and for agribusiness enterprises. The private sector will be the engine of growth.

Sustainability: The Policy incorporates the five areas of sustainable development: economic, social, environmental, technical and political/institutional.

Entrepreneurship: The policy recognizes agriculture as a business, providing not only employment for rural people, but generating profits that increase rural incomes and enhance rural prosperity. Entrepreneurship is key to the expansion of the Agriculture and Food Policy and will be nurtured through training and promotion.

Accountability and Transparency: The policy and affiliated programmes and projects will be subject to a monitoring, evaluation, and accountability process which will allow the participation and access by all stakeholders through transparent reporting mechanisms. Effective Results-based M&E Systems will be implemented to measure progress along the implementation path. The M&E system will be utilized to evaluate how well financial expenditures match program outputs and results.

Equity and Inclusiveness: All persons should have equitable and broad access to productive resources and social services regardless of race, creed, and gender groups. To reduce inequity, the policy and its related actions will be developed to target producers and processors who are marginalized. Large, medium size, and small farmers with an emphasis on gender and youth inclusion will all be included in the implementation of the Agriculture and Food Policy.

Social responsibility: The Policy will encourage stakeholders to be socially responsible by ensuring the production and processing of food that is safe for consumption. Stakeholders must also operate efficiently and effectively for the benefit of current and future generations, which guarantees general policy benefits to all.

5.3 OVERALL POLICY GOAL

The overall goal of the policy is to engender a conducive environment for the development of an Agriculture and Food Sector that is competitive, diversified and sustainable, enhances food security and nutrition, and contributes to the achievement of the socio-economic development goals of Belize.

5.4 BROAD OBJECTIVE OF THE POLICY AND PILLARS

The broad objective is to ensure greater efficiency and effectiveness in the structure and institutional management systems of the Agriculture and Food Sector in Belize. This will be through well-defined roles of regulatory and promotional bodies, enhancing greater collaboration among key stakeholders, and the establishment of clear policy incentive or disincentive frameworks for the production, utilization, and marketing of agriculture and food products. This is expected to enhance the sustainable growth of the sector, to ensure food and nutrition security, to improve farmer/processor income, to create employment, and to attract private sector investment and participation in the sector.

The following five pillars support this objective:

- Production, Productivity, and Competitiveness;
- Market Development, Access and Penetration;
- National Food and Nutrition Security and Rural Livelihoods;
- Sustainable Agriculture and Risk Management; and
- Governance

5.5 THE POLICY INCENTIVE FRAMEWORK

The National Agriculture and Food Policy is based on five pillars, one of which is a crosscutting theme whose purpose is to fulfill the above goal and objectives and achieve the targets. Each pillar has been

divided into specific strategic objectives for which priority policy measures and actions have been designed to achieve these and thus contribute to the overall achievement of the goal.

Table 2 presents a schematic of the hierarchical structure of the policy framework.

Table 2: Policy Framework Structure

Pillar	Pillar1:	Pillar 2:	Pillar 3	Pillar 4
	Sustainable Production, Productivity, and Competitiveness	Market Development, Access, and Penetration	National Food and Nutrition Security and enhance Rural Livelihoods	Sustainable Agriculture and Risk Management
Strategic Objectives	Rationalize the regime of investment incentives for the sector.	Improve the market information and intelligence systems.	Increase food and nutrition security	Promote best practices in disaster risk management (DRM) and climate change adaptation (CCA).
	Establish mechanisms that ensure quality and SPS compliant production and value chains which meet domestic and export requirements.	Increase access to domestic and external markets by addressing enabling environment constraints	Increase sustainable livelihood options for the food and nutrition deprived.	Create/strengthen pro-environment policies and institutions and promote integrated management of the environment.
	Reform agricultural education and training to increase productivity	Establish/strengthen linkages among agriculture, tourism, and manufacturing sectors to expand markets	Increase the participation of youth and women in the development process through empowerment programmes	Support adaptation and mitigation strategies
	Adopt innovative technologies through R&D to enhance competitiveness	Increase the use of innovative marketing in domestic and export markets.	Promote linkages of small producers to specialized market	Increase use of strategies to combat praedial larceny and contraband.
	Strengthen mechanisms to support technology transfer			
	Improve the infrastructure to support increased production and productivity.			
Cross-Cutting	Governance - Accountability, Transparency, and Coordination			
Strategic Objectives	Improve planning, budgeting, and programme delivery.			
	Strengthen cooperation partnerships.			
	Develop and implement an effective and efficient information and communication system.			

5.6 NATIONAL TARGETS

With the development and implementation of the Agriculture and Food Policy, the expected impact on the following macroeconomic and sectoral variables are as follows:

- Sector Growth Rate – The average annual sector growth rate increased from the current average of 2.8 % to 4.0 %;
- GDP – The Agriculture and Food Sector's contribution to GDP increased in real terms from approximately 13.0 % of GDP to 20 % of GDP;
- Exports – The average annual growth rate in agricultural exports increased from 4.2 % to 5.5 %;
- Imports – The average rate of growth in imports of food commodities decreased from 5.8 % to 3.5 % with a heavy focus on import replacement commodities;
- Direct Employment – The direct employment in the Agriculture and Food Sector increased to 25 % of total employed labor force;
- Real Income – The real income of producers increased by 2.5 % per year;
- Poverty – Poverty reduced through agriculture's contribution to improved livelihoods;
- Food and Nutrition – Food and nutrition increased, resulting in a decrease in malnutrition;
- Agriculture workforce – The productivity of the agricultural workforce increased; and
- Governance – The management and governance capacity within the agriculture sector increased.

CHAPTER 6: THE PILLARS, STRATEGIES, MEASURES AND ACTIONS

PILLAR 1: SUSTAINABLE PRODUCTION, PRODUCTIVITY, AND COMPETITIVENESS

This pillar aims to raise the competitiveness of prioritized value chains of the agriculture and food industry, through increased production derived from expanded scale of production and productivity enhancement, with the application of appropriate and efficient measures and actions. It is anticipated that this will provide the country with the ability to leverage the possibilities and exploit the opportunities that exists in domestic and external markets.

The analysis of the external and internal environment clearly suggests the need for Belize to upgrade its export basket, particularly in regard to non-traditional agriculture for export, given the low level of diversification and eroding preferences for banana and sugar exports. Upgrading the export basket and achieving higher growth will depend on addressing the myriad of constraints hindering investment and production and productivity along the value chains. These include those related to finance and investment incentives, technology generation, validation and transfer, infrastructural enhancement, and inclusion of small scale/family producers.

STRATEGIC OBJECTIVE 1.1: RATIONALIZE THE INVESTMENT INCENTIVES REGIME FOR THE SECTOR

There is a general consensus in the private sector that the existing regime of investment incentives is partially conducive for stimulating increased private sector participation in the Agriculture and Food Sector. The adequacy of incentives, lack of transparency in application, selective enforcement of and lengthy response time in accessing the incentives are issues that need to be addressed. In order to ensure adequacy, effectiveness, and efficiency, the Government of Belize shall therefore rationalize the existing regime of investment incentives relevant to the Agriculture and Food Sector to facilitate increased private sector participation in agri-business enterprises. This will be done through the implementation of the following policy measures and actions that add value to the existing investment incentive regime:

Policy Measures and Actions

PM1.1.1 Establish an Incentive Regime for Innovative and Pioneer (New) Status Agri-Business Firms and for Existing Companies which Reinvest in Agriculture

The Government shall establish an investment incentive regime for Pioneer Status agri-business and existing companies that reinvests in agriculture. Actions to be taken will include:

- Review and modify existing incentives regimes to promote equitable opportunities for the export and domestic markets;
- Promote equitable taxation regimes that enhances the competitiveness of the productive sector; and
- Promote incentives schemes for the use of local raw materials.

PM1.1.2 Enhance Access to Foreign Direct Investments (FDIs), Including Cross-Border Investment

The Government shall

- Enhance access to transparent institutional framework and risk management mechanisms to facilitate cross-border investments.

PM1.1.3 Foster Public-Private Partnerships to Access a Competitive Innovation Fund for Agriculture and Agribusiness

A critical component of the NAFP is to enhance the capacity of the private and public sectors in agriculture through supporting innovative private sector activities or public-private partnerships that promote market-led production, processing, and marketing initiatives. This support will be implemented through the creation of a competitive Innovation Fund for Agriculture. The objective of the Fund will be to foster the Policy's central objective of commercializing agriculture by encouraging private sector participation in market-led production and service delivery, and promoting productivity and profitability or commercial viability of sector activities at all levels of the wider agricultural sector value chains.

For purposes of the fund, a qualifying enterprise would be defined as "A business enterprise that is producing or offering a product or service for sale and fully for profit. The product is below the desired or optimum level of operation, but at the same time the enterprise is neither capable of injecting all of the required additional resources/capital from its sources nor has the capacity to acquire required additional resources/capital from commercial sources."

The competitive grant fund will support agriculture, livestock, and agribusiness initiatives at all levels of the value chain from production at farm level through value addition and marketing. The fund will support all subsectors of agriculture and agribusiness across all commodities.

Sources of funds will be mobilized from the larger donors such as the EU or via loans/grants from the IFIs. This can also be expanded to have an envelope for "venture capital" to facilitate investment in productive activities.

STRATEGIC OBJECTIVE 1.2: ESTABLISH MECHANISMS THAT ENSURE QUALITY AND SPS COMPLIANT PRODUCTION AND VALUE CHAINS WHICH MEET DOMESTIC AND EXPORT REQUIREMENTS.

Value chain refers to all activities and services from input supply to production, processing, wholesale, and finally, retail. Value chain analysis is a useful tool to identify critical constraints and bottlenecks within the prioritized commodity chains, where interventions can be targeted and stakeholders mobilized to address these. A value chain approach should also help to enhance the sustainability of donor interventions into the sector, and result in increasing the competitiveness of commodity chains identified as critical for achieving food security and sectoral growth.

The identification and prioritization of selected agriculture and food value chains and the development and implementation of industry competitive investment plans for these chains are critical components of Belize's growth and development agenda. The promotion of value chain development will be a critical and important component of this policy incentive framework.

The focus will be on the upgrading and/or strengthening of commodity value chains for competitiveness, with particular focus on adding value along the chain and integrating viable small and medium enterprises to diversify opportunities along these chains. The strengthening of national support institutions that play a key role in dealing with issues that directly impact value chains and trade facilitation are also identified as critical.

Policy Measures and Actions

PM1.2.1 Identify and Prioritize Strategic Value Chains for Development

This involves support to the identification and prioritization of strategic value chains for development within the crops, livestock, and aquaculture sub-sectors. The criteria for selection will be based, but not limited to the following:

- Contribution to food and nutrition security;
- Economic benefits, including employment potential and foreign exchange earnings/savings;
- Production potential;
- Access to markets and sustainability of supply;
- Import substitution possibilities;
- Possibility for immediate action and likelihood of early results;
- Feasibility and sustainability of development;
- Value addition potential;
- Sanitary and phyto-sanitary considerations for ease of trade; and

- Availability of technology/ies and human and financial resources.

PM1.2.2 Promote Industry Competitive Investment Plans for Prioritized Value Chains

On the basis of the value chain selected, support will be provided for the development of medium and long term industry competitive investment plans. This action will be implemented in collaboration with agri-business producers and processors, producer associations, and national, regional, and international development partners. These plans will aim to resolve all critical constraints that delay the achievement of higher levels of production, productivity and competitiveness, including research and technology transfer, agricultural health and food safety, trade, infrastructure, and agro-environmental issues among others.

PM1.2.3 Promote the Establishment of Production Clusters for Enhancing Competitiveness

This action will focus on promoting the establishment of production clusters among small scale producers and processors. The aim of this action is to promote viable agro-food chains for several non-traditional commodities (including plantains, white corn, beans, peanuts, potatoes, vegetables, fruit trees, small ruminants, pigs, apiculture and aquaculture), where the level of organization is low. It will also seek to increase competitiveness through achieving economies of scale and resolve common agronomic problems in order to establish sustainable value chains to benefit all stakeholders along the chain. This will be achieved by strengthening the capacity of smallholder farmers/Micro, Small, and Medium Enterprises to be better organized, to network and to access formal domestic and regional markets. Efforts will be made to coordinate with relevant development partners and national institutions to facilitate access to information and advice on relevant experiences from elsewhere on the development of innovative products and value adding processes, on quality certification and geographical indications, as well as market access, information, and intelligence.

PM1.2.4 Support a Comprehensive Labor Policy for Agriculture

This action is based on recommendations from the industries to do a comprehensive review of and take into consideration the need for migrant labor especially during the peak period (harvest) of need for manual labor. Thus this policy measure will support:

- The harmonization of labor policies for the agriculture sector; and
- A comprehensive review and consideration of the need for migrant labor.

STRATEGIC OBJECTIVE 1.3: REFORM AGRICULTURAL EDUCATION AND TRAINING TO INCREASE PRODUCTIVITY

The objective will seek to strengthen the overall agricultural education framework and increase the effectiveness and responsiveness of the relevant institutions in providing needed skills in education, research, training, and policy formulation and planning to support the production and marketing systems and sustainability of the agricultural sector.

Policy Measures and Actions

PM1.3.1 Improve Knowledge Management

This policy measure will ensure that the critical mass of well trained and skilled managers, professionals, technicians, workers, and agro-entrepreneurs necessary and sufficient to promote changes and innovative production processes (primary production, processing, and marketing) is available. For education and change agent training linked to production processes, there will be specific programs and projects developed to manage knowledge and skills development of students from technical colleges and producers. Trainings will focus on aspects related to four complementary areas: processes of production, processing, marketing, and management and use of information and communication technologies. It will include the following actions:

- Complete a gap analysis and develop capacity building plans to enhance skills in the Agriculture and Food Sector;
- Enhance existing training programs for producers, employees, or management teams of agribusinesses;
- Collaborate with secondary and tertiary level institutions to address capacity gaps; and
- Enhance opportunities for youth and women to be more involved in the agriculture and food sector.

PM1.3.2 Collaborate with the Ministry of Education to Develop Specific School-Based Programs

Under this policy measure, the Government shall undertake the following actions:

- Review agricultural curriculum at university and training college level to match skill development demands of the public and private sectors;
- Introduce and/or strengthen school gardening program at primary and secondary schools linked to school feeding (nutrition); and
- Promote agro-processing training at high school level.

STRATEGIC OBJECTIVE 1.4: ADOPT INNOVATIVE TECHNOLOGIES THROUGH R&D TO ENHANCE COMPETITIVENESS

Strong research and development support is indispensable for increased productivity and competitiveness of the Agriculture and Food Sector. Continuous innovation, learning, and improved technologies are needed in all aspects of value chains. In this context, the objective seeks to encourage and promote the development and adoption of modern agricultural knowledge and the utilization of information systems to improve decision making processes; foster interactions among players in the agriculture and food value chain; and support linkages to research and development at the national, regional, international levels, extension services, and with agricultural education and training institutions. The application of modern technologies such as information technology, biotechnology, food safety and measurement technology need to be more widespread in the Agriculture and Food Sector. The use of these technologies will improve product quality, coordination, and other cost efficiencies and reduces a variety of business and food safety risks.

Research and development activities in Belize are largely undertaken by the public sector and associated commodity organizations. There is the need to develop closer working relationship with national, regional, and international research and development organizations. There is also the need for Government, private sector, and international organizations to allocate sufficient funds for R&D if the development agenda established for the sector is to be realized.

Policy Measures and Actions

PM1.4.1 Establish a National Agricultural Research and Development Policy and Implementation Mechanism

The Ministry will undertake to:

- Formulate a national agricultural research and development policy that will provide the objectives and principles for agricultural research;
- Define the institutional arrangements including roles and linkages among key players and the priority areas for research;
- Address the existing weaknesses in coordination of research and define the roles and responsibilities of the private sector and local authorities in research;
- Provide a basis for the design of institutional strategic plans to guide the implementation of research;
- Strengthen the institutional and technical capacity of R&D, ensuring that it is demand driven and responsive to the needs of producers and provides the highest potential for return on investment;
- Develop, adapt, and adopt appropriate technologies and methods to improve productivity;
- Establish a national coordinating mechanism for research and development; and
- Collaborate with tertiary level institutions that are conducting applied research in the agriculture sector.

PM1.4.2 Transform Central Farm Station to become a Centre of Innovation

Central Farm (Research) will be restructured, to become a center of excellence for innovation and competitiveness in Belize. This process will involve:

- The revision of the Central Farm strategic plan for the research and development sector, including the integration of other relevant outreach stations and institutions;
- The development of a new strategic plan, taking into account the achievements and constraints faced over the last five years, the decentralization of policy and processes taking place in the MOA, and the unique constraints faced by farmers in different regions of Belize;
- Promoting technological innovation, aimed at ensuring that R&D efforts are market led and conducted to generate and apply advanced technologies in areas such as breeding, biotechnology, product development, among others, to production processes along the value chain;
- Providing access to modern technology;
- Promoting better coordination of R&D activities of public institutions; and
- Fostering the incorporation of private sector in research and development agenda for biotechnology products.

PM1.4.3 Promote Research on Value Addition and Post-Harvest Handling

This action is aimed at increasing the production efficiency and quality of agriculture and food output. Rural processing industries will be targeted. This action will:

- Promote strategic alliances among stakeholders for development of knowledge, products and biotechnological services. The Strategic alliances with universities, Government agencies, private sector and other entities will contribute and foster knowledge generation in biotechnology.
- Promote and support the establishment of an Agriculture and Food Innovation Fund, with support of the private sector and other strategic partners to support R&D and innovation in agriculture

STRATEGIC OBJECTIVE 1.5: STRENGTHEN MECHANISMS TO SUPPORT TECHNOLOGY TRANSFER.

This strategic objective will ensure the effective dissemination of new and existing technologies to producers as well as expanding and strengthening the institutional and technical capacity of extension services. It aims to provide better support, rapid and extensive transfer of new and innovative technologies to primary producers and other actors along the value chain, as well as linking producers to markets.

Policy Measures and Actions

PM1.5.1 Improve Knowledge and Linkages among Stakeholders

This will be accomplished through:

- Improving and strengthening linkages and coordination among stakeholders for effective services delivery;
- Promoting Commodity Improvement Groups at the national and zonal levels;
- Improving knowledge and use of statistical information for service delivery;
- Strengthening the exchange of knowledge information with key stakeholders;
- Improving management and communication systems;
- Increasing the use of innovative and efficient technologies for service delivery; and
- Adopting, adapting, developing, and promoting appropriate innovative technologies to increase labor productivity.

PM1.5.2 Improve the Human and Institutional Capacities of the Extension Services of the MOA

This policy measure will involve the following actions:

- Review, modify and implement the National Extension Strategy;
- Identify and address capacity gaps in the Extension Service;
- Strengthen technology system and pathways - Agricultural transformation to a large extent, will depend on innovative technological flow and involve the identification of farmers' technological needs, especially targeting market oriented needs and requirements. The understanding of market demands and needs at all levels (local, national, and international) will be the prerequisite. Identifying the needs will take a bottom's up participatory approach at the district and regional levels; and
- Improve knowledge and understanding of the needs of the producer groups.

PM1.5.3 Improve the Capacities of the Extension Workers

This policy measure will involve the following actions:

- Support long term key courses at colleges and university, with an emphasis on the use of ICT to increase efficiency and effectiveness of the extension service;
- Support short-term courses for extension workers set both locally and overseas in crop agronomy, livestock husbandry, pests and diseases, storage, marketing, processing and seed stock development (livestock breeding and production of planting materials);

- Establish a mechanism that supports a robust hands-on training program for extension staff with exchange opportunities with Latin America and Caribbean institutes;
- Promote in-house training of extension officers.

STRATEGIC OBJECTIVE 1.6: IMPROVE INFRASTRUCTURE TO SUPPORT INCREASED PRODUCTION & PRODUCTIVITY

Improved infrastructure is vital to support a competitive agriculture. This includes rural feeder roads, adequate port facilities, storage facilities, water systems for agriculture among others.

Policy Measures and Actions

PM1.6.1 Increase Understanding and Implementation of the Infrastructural Priorities in the Agricultural Sector

This policy measure will involve the following actions:

- Undertaking a gap analysis to identify and prioritize needs;
- Developing strategic plans to address needs;
- Developing alliances and improving coordination to ensure implementation of strategic plans;
- Mobilizing resources to implement infrastructural priorities;
- Improving monitoring and evaluation to ensure long term effectiveness and utility of infrastructure.

PM1.6.2 Improve the Financial, Institutional and Technical Capacity of the Public Sector to Support Development and Implementation of Agriculture Water Management with an Emphasis on Drainage and Irrigation System

This policy measure will involve the following actions:

- Strengthening of the technical and institutional capacity of the relevant authority to promote and support the implementation of the drainage and irrigation policy and strategy;
- Improve the data and information collection system to enhance efficient and reliable water management schemes for agriculture production;
- Increase access to and use of capital investments at affordable interest rates for drainage and irrigation schemes;
- Promote investments in water storage systems and water management schemes for agricultural production;

- Improve the management of the irrigation and drainage systems; and
- Improve the capacity to monitor and evaluate effectiveness and impact of drainage and irrigation schemes.

PILLAR 2: MARKET DEVELOPMENT, ACCESS AND PENETRATION

Historically, efforts to raise the income of agriculture and food producers have focused primarily on improving agricultural productivity. Indeed, evidence suggests that agriculture-led growth offers an unusually powerful vehicle for broad-based poverty reduction. Nonetheless, the non-farm dimensions of agricultural development – particularly in agricultural marketing and agro-processing – is critical to successful agricultural growth. Without well-functioning agricultural markets, productivity gains on the farm lead to temporary production surges and price collapses. Improved market access can result in maintaining production incentives and permitting household specialization. This enhances opportunities for value-added activities and the development of high-value products. Where productivity-enhancing agricultural technology and favorable market incentives converge, sustained agricultural growth typically occurs.

Strong links of Belize producers to markets are essential to increasing agriculture and food production, generating sectoral and economic growth, and reducing poverty hunger and malnutrition. Improving these links creates a virtuous circle by boosting productivity and competitiveness, increasing incomes and strengthening food and nutrition security. Improved access by producers to domestic and international markets creates better opportunities to sell more produce at higher prices. This in turn encourages producers to re-invest in their businesses and thereby, increase the quantity, quality and diversity of the goods they produce.

However, the realization of these benefits and opportunities hinge on several prerequisites that must be in place. These are:

- Adequate and safe storage facilities;
- Good quality roads and affordable transportation;
- Adequate, timely and reliable information – knowing in real time about market prices and demand is vital for participation in modern value chains;
- Effective farmers’ organizations allow small scale family farm producers to bulk produce, reduce costs through economies of scale and, perhaps most importantly, to strengthen their bargaining power with powerful private-sector actors. Membership can also bring access to financial, processing, and business services, that empower farmers to deal with the private sector on a more level playing field; and
- Production and availability of high quality and safe produce, with a traceability system along the chain.

The analysis of the external and internal environment clearly indicates the need for improvement of market development, access, and penetration if Belize is to achieve the goal and objectives established for the development of the Agriculture and Food Sector.

In light of the challenges facing Belize to increase market shares in the domestic, regional, and international markets, Government shall:

- Promote improvements in the market information systems that help the growers, traders, and processors in increasing the efficiency of the product marketing, minimizing transaction costs and enhancing transparencies;
- Increase access to domestic and external markets by addressing enabling environment constraints;
- Establish/strengthen linkages between agriculture and tourism, manufacturing, and health to expand markets; and
- Develop/strengthen innovative marketing of products, both in the domestic and export markets, targeting institutional and household consumers.

STRATEGIC OBJECTIVE 2.1: IMPROVE THE MARKET INFORMATION AND INTELLIGENCE SYSTEMS

This strategic objective seeks to enhance national and regional market information and intelligence services.

Policy Measures and Actions

PM2.1.1 Enhance National Market Information and Intelligence System

There are some limitations in the institutional structure and capacity of the existing market information and intelligence system in Belize. A particular area is in the provision of agricultural production data. While Belize has a relatively functional system in place to regularly provide agricultural production data on a quarterly basis, there are significant deficiencies with regard to frequency of production, coverage, or accuracy and timeliness.

This policy measure will support producers/entrepreneur's involvement in value chains and track supply and demand trends by:

- Identifying and prioritizing market information needs for priority commodities;
- Identifying and applying best practices and methodologies for agricultural market data collection and analyses;
- Undertaking gap analysis in the application of best practices and methodologies and provide respective trainings;
- Enhancing the technical platform of the Agricultural Market Information System (AMIS) for better management of priority market information needs;

- Establishing a publicly accessible, electronic-based, National Marketing Intelligence System (NAMIS); and
- Mobilizing necessary resources to strengthen data collection and dissemination of information on a timely basis.

STRATEGIC OBJECTIVE 2.2: INCREASE ACCESS TO DOMESTIC AND EXTERNAL MARKETS BY ADDRESSING ENABLING ENVIRONMENT CONSTRAINTS

This strategic objective will seek to improve the physical, technical, regulatory, and financial mechanisms which connect producers to markets and the accompanying institutions that can reduce the marketing risks and transaction costs in the exchange process. In addition, the issue of production - market linked credit facilities will be reviewed and weaknesses addressed.

Policy Measures and Actions

PM2.2.1 Improve the Marketing Infrastructure

Distance to market and lack of roads and transport to get to them is a central concern to stakeholders in the Agriculture and Food Sector. This can adversely affect the producers' ability to buy inputs and sell outputs, increase the cost of transportation and transactions, and can lead to uncompetitive and geographical monopolistic markets. Improved infrastructure promotes increased market integration and more commercially oriented production systems.

This policy measure will be implemented by the following actions:

- Identify priority market infrastructure needs;
- Develop and enhance physical market infrastructure to allow for improvements in consolidation and distribution systems;
- Develop and enhance wholesale marketing facilities for handling and selling produce, agro-processed products and livestock;
- Rehabilitate and maintain farm/feeder road network; and
- Upgrade/improve transportation system for crop and livestock products, port facilities and other infrastructure that connects producers to markets.

PM2.2.2 Improve Adherence to Quality, Food Safety and SPS Requirements to Enable Trade in Domestic and Export Markets

BAHA was established to ensure and maintain the necessary international food and safety standards that enable Belize to trade in the domestic and export markets in products from animal and plant

origin. Similarly the services of Belize Bureau of Standards (BBS) have also been essential in maintaining quality control and standards.

Even though BAHA has been recognized as a model of efficient and effective service delivery related to inspection and certification, several weaknesses have been identified with BAHA's structure and services provided. These include poor transparency and visibility with stakeholders with no annual reports prepared; weak human resource planning, including unfilled management positions and no grading structure; inadequate information communication technology (ICT) resources and infrastructure for communication, networking, and knowledge sharing; limited capacity in some operational areas at department level including laboratory diagnostic and testing capacity, and inspection personnel; and lack of a national food safety policy. Other major concerns identified that strain the services of BAHA include:

- Frequent changes in export markets' regulatory requirements which require updating of SPS measures, standards and controls;
- Poor understanding by public and private stakeholders of the Public Good generated by BAHA's operations which results in resistance to implement critical official controls and regulations and to an increase in fees for services;
- Emergence of new pests and diseases such as citrus greening or Huánglóngbìng (HLB) in citrus;
- Growth in tourism on mainland and in Cayes which increases risk of entry of pests such as the med-fly outbreak in 2013;
- Lack of transparency by trading partners in regard to pests and disease outbreaks; and
- Changing laboratory analytical technology which requires ongoing investment in laboratory equipment.

In light of this situation, the MOA through BAHA will collaborate with the BBS and other partners to establish a Quality Management Infrastructure (Systems and Measures) and strongly support related legislative framework (HACCP, ISO 9001:2008, ISO 17025, ISO 14001) throughout the food production and processing sector to meet market requirements (FDA Food Safety Modernization Act (FSMA) and similar legislation in the European Union and to ensure the certification of farmers and agro processors. This action will access and facilitate technical assistance through the Bureau of Standards for HACCP certification and also seek to assist entities through institutional support and financing to attain ISO certification. It will also develop and support systems that improve equipment, quality, and food safety management that are more affordable and more accessible to MSMEs.

Food safety and sanitary and phyto-sanitary regimes are important considerations for the development and upgrading of food chains, especially in light of a globalized marketplace where firms and industries operate and compete. This area is critical to improve productivity and protect agricultural and livestock subsectors, as well as public health, and comply with national and international regulations in agricultural health, food safety and traceability. This will ensure the access, maintenance and expansion of supply to domestic and external markets.

Reforms in this area will facilitate agricultural exports of all types over the long run and thus require the following actions:

- Enhance and implement National Food Safety Policy and Action Plan;
- Identify and prioritize the key gaps that constraint adherence to specifications;
- Enhance and implement food safety legislation, and promulgation of new legislation to address existing gaps;
- Improve monitoring, inspection and certification to improve efficiency and effectiveness;
- Establish and apply appropriate SPS and ensure compliance with national and international standards;
- Enhance the institutional capacities of national marketing agencies and cluster groups to meet the required standards and regulations;
- Increase the knowledge and awareness of the producers and general public on food safety, quality control and postharvest requirements and related environment issues; and
- Increase technical capacity and competencies of relevant agencies to meet existing and new requirements.

PM2.2.3 Enhance and Strengthen the Capacity for Trade Facilitation for Domestic and Export Markets

In the context of Belize, the Government will provide support to those institutions and institutional arrangements that are structured to reduce marketing risks and transaction costs in the process of exchange between producers and consumers. Actions and support will include:

- Develop and/or strengthen systems for public-private sector dialogue on trade negotiation issues;
- Improve capacity of producer groups and Growers Marketing Associations to access markets, financing and information;
- Reduce transport costs resulting from synchronizing the demand for transport services;
- Create collection points, packaging sites and promoting other added-value activities with cluster groups;
- Review and reform existing legal framework to create that enabling environment for MSME;
- Strengthen cooperatives to ensure that productive activities are treated as a business/enterprises, and agriculture cooperatives are considered under the MSME Policy as SMEs. The Cooperative act will be reviewed, a process to be accomplished with the active participation of key stakeholder such as farmers', women and youth groups and aimed at ensuring the Cooperatives are more responsive to their entrepreneurial needs. This will be achieved by streamlining registration processes and include new forms of collaboration (informal farmer groups, shareholding cooperatives, etc.);

- Strengthen Producers' Organizations through the Cooperatives Department and building sustained capacity of rural producers to facilitate collaborative production planning, supply to intermediaries, and marketing of foods. This aims to improve the operations of farmers' co-operatives and foster an integrated rural development focus. This will allow for building entrepreneurship with the collaboration of BELTRAIDE;
- Work with the Ministry of Trade to establish a trade negotiation program to support agricultural producers to take advantage of emerging opportunities within the region (CARICOM and SICA). The MOA in collaboration with the Ministry responsible for Trade will ensure active participation of the stakeholders in trade negotiations;
- Improve existing institutional framework and collaboration between Ministry for Trade and the productive sector in establishing trade policy processes and negotiation positions;
- Increase market penetration in emerging domestic and international markets;
- Enhance communication and information sharing between Ministry for Agriculture, Ministry for Trade, and Ministry of Foreign Affairs to improve access to agricultural trade opportunities; and
- Improve the capacity of the Trade Negotiating Team to engage in effective and results-based negotiations for Agriculture.

PM2.2.4 Improve Domestic and Export Credit Policies

One of the more urgent priorities of the agricultural sector is the availability of affordable credit. Interest rates are high in Belize in comparison to other countries in the region, which puts its agricultural sector at a disadvantage compared to those of its neighbors, particularly in regard to livestock producers, producers of perennial crops, entrepreneurs in food processing, and farmers who wish to install irrigation systems, covered structures, and other types of infrastructure.

This policy measure will focus on seeking Government's support to:

- Review and reform domestic and export credit policies;
- Expand export financing schemes. This is an urgent requirement and could be addressed by, for example, offering through the central bank a rediscount line for this purpose. Currently importers in industrialized countries are less willing than before to offer short-term finance to exporters in developing countries, and so the lack of an export credit facility seriously affects Belize's export development.
- Improve Legislation and regulations to create the enabling environment to access financing.
- Improve access to credit in an effective and timely manner.

STRATEGIC OBJECTIVE 2.3: ESTABLISH/STRENGTHEN LINKAGES AMONG AGRICULTURE, TOURISM AND MANUFACTURING SECTORS TO EXPAND MARKETS

Agriculture plays an important role in contributing to the socio-economic development of Belize. It is the primary source for employment, livelihood, and food security for the majority of rural people. However, the future success of such contributions depends largely on the direct impact agriculture has on the national economy as well as how the agricultural sector stimulates the growth of other sectors. Consequently, the role of agriculture and its linkages to the rest of the economy is important and should be strengthened, especially those linkages among agriculture, tourism, manufacturing and health for market expansion.

Policy Measures and Actions

PM2.3.1 Improve Linkages between Agriculture and Tourism

The tourism industry has, in the past, developed largely apart from other sectors such as agriculture. On the other hand, agriculture has developed mainly to satisfy export markets. Domestic agriculture production has been displaced to a considerable extent by food imports.

The promotion of agriculture tourism linkages is an attempt to enhance the local value added of the tourism industry, while at the same time promoting the development of domestic agriculture. Forging agriculture-tourism linkages capitalizes on the inherent ability of the tourism sector to diversify the economy, stimulate entrepreneurship, catalyze investment and assist in wider social development in our rural communities. Such linkages offer unprecedented opportunities to increase agriculture and food production and build resilience and sustainability of the economy. The latter is particularly critical for reducing the high levels of leakage of foreign exchange from tourism, preserving cultural identity, enhancing food and nutrition security, reducing poverty in local communities, and promoting local awareness and good practices with respect to climate change and environmental issues. Increased linkage between tourism and agriculture could be enhanced through the adoption of a cluster-based strategy for improving the competitiveness of the tourism sector and for improving the livelihoods of communities and rural areas.

The strengthening of linkages between agriculture and tourism is aimed at expanding the market for domestic high valued products, both fresh and processed. This will be effected through:

- Establishing a consistent supply of produce and products to meet market demand for quality and quantity;
- Increasing the promotion of food tours and food festivals. Within the last few years culinary tours and food festivals have become important selling points for tourists who have grown more sophisticated and demand authentic food experiences.

PM2.3.2 Improve Linkages between Agriculture and the Manufacturing Sector

The need for strong linkages between the agriculture and manufacturing sectors exists because a country's economy can potentially benefit greatly from such linkages. This means that by having a

strong processing industry, an essential outlet could be formed for the production of raw agricultural materials. Therefore, the strengthening of these linkages will be achieved through the implementation of the following actions:

- Increase support to micro, small, and medium size agro-processing enterprises;
- Increase opportunities and access to affordable financing;
- Enhance the skills of MSME owners and managers (including business management and market research skills training);
- Increase and promote a robust import replacement programme;
- Increase use of local raw materials in agro-production processes;
- Provide tax incentives and exemptions to agro-processing enterprises for the purchase and installation of modern processing plants; and
- Improve capacity of agro-processors to meet standards.

STRATEGIC OBJECTIVE 2.4: INCREASE THE USE OF INNOVATIVE MARKETING IN DOMESTIC AND EXPORT MARKETS.

This strategic objective will seek to implement new and innovative ways of marketing Belize's agriculture and food products aimed at improving the efficiency and performance of our marketing system.

Policy Measures and Actions

PM2.4.1 Increase the Use of Branding of Selected Products for Differentiation

This policy measure aims at the identification and differentiation of selective products, with branded products being sold at higher prices than regular or similar products sold by competitors. This process of product identification and differentiation will be based on criteria such as traditional character, either in the composition or means of production, or based on products that are produced, processed, and prepared in a given geographical location using recognized know-how, among others. In this context, the government will support producers/processors by:

- Implementing a program for product differentiation. This will involve the design and implementation of a program for product differentiation through "quality" labels, branding to differentiate attributes, such as family farming corporate seal, designation of origin, organic seal, geographical indicators, and collective marks among other criteria for product differentiation. Currently some commodities already have Fairtrade recognition and these would be used as models to follow;
- Increasing the usage and access to financing for branding, certification, and marketing of differentiated products and produce;

- Enhancing the regulatory environment that supports fair competition; and
- Increasing capacity and knowledge of producers.

PM2.4.2 Promote Increased Use of Information Communication Technology (ICT)

The need for an improved market information and intelligence system was discussed and presented along with some accompanying measures, under the policy instrument and measure 2.1.1. This measure will focus on a wider range of interventions that the government will utilize to boost innovative marketing.

Traditionally, price information in Belize has been disseminated in many ways: chalked on notice boards in markets, broadcasted by local radio stations, published in newspapers, and posted on websites. The information on these websites is confined mainly to product standards and specifications as well as market studies, including databases of contacts such as sellers and buyers, traders, agricultural processors, and input suppliers. Unfortunately, these sites are out of the reach of most rural people.

As highlighted under 2.1.1, market information and intelligence systems have been criticized by stakeholders for the poor quality, accuracy, and lack of timeliness of information presented, which in turn does not help the decision making process. There are also weaknesses in price gathering, as there are few incentives for accuracy or for working outside office hours. The major criticism, however, has been that the information does not reach farmers on time, if at all.

In this context, the Government will:

- Increase collaboration with telecommunication companies to increase domestic and export market access;
- Increase use of mobile phone applications for providing market information; and
- Increase linkages between buyers and sellers via websites and social media.

PILLAR 3: NATIONAL FOOD AND NUTRITION SECURITY AND RURAL LIVELIHOODS

The Government has developed a National Food and Nutrition Security (FNS) Strategy for the country (Policy and Action Plan), which is currently under implementation. A critical review of NFNS Strategy has highlighted five major deficiencies:

- Absence of a dedicated food import assessment mechanism ;
- Limited identification and definition of strategy for promoting livelihood options for the food and nutrition insecure;
- Inadequate incorporation of gender in the FNS agenda;
- Lack of a framework for small scale/family farmers to market; and
- Limited promotion of “Eat local and healthy” options.

This pillar, therefore, proposes strategies for addressing the deficiencies identified to ensure that an adequate and effective policy mix is in place for addressing FNS in Belize.

Additionally, the pillar seeks to improve rural livelihoods and enhance food and nutrition security by promoting the modernization of rural communities, improving the quality of life through increasing opportunities in agribusiness, strengthening institutions, supporting agribusiness and community development at all levels, and building social capital in rural communities. It recognizes that several issues impacting FNS are being addressed under other pillars, including access to improved services, rural infrastructure, and land tenure and usage.

One of the major constraints is an aging farmer population with low replacement rates due to the exodus of young people from the rural areas. The expansion of the tourism sector has also complicated this issue.

In response to the aging farmer population, the pillar will encourage greater involvement of youth in agribusiness to ensure continuity of the sector. Through the creation of appropriate incentives and programmes, this segment of the population will become engaged and subsequently, aid in the growth of the sector. Women are also critical to the achievement of rural prosperity, thus this pillar will seek to increase their participation in agribusiness. The provision of an enabling environment for the participation of youth and women in agribusiness, while improving the socio-economic climate of the rural communities, is essential for enhancing rural livelihoods.

STRATEGIC OBJECTIVE 3.1: INCREASE FOOD AND NUTRITION SECURITY.

Policy Measures and Actions

PM3.1.1 Promote “Eat local and healthy” Campaign

This measure will be implemented as a collaborative effort among the Ministry of Agriculture, Ministry of Health, Ministry of Education, and other strategic partners. It will actively promote a “Produce Local, Buy Local, Eat Local” campaign by increasing availability of safe, affordable, nutritious, and good quality food commodities/products with an emphasis on locally produced foods. The recommended actions are:

- Identify commodities that can be produced on a national scale competitively and in required quantities;
- Enhance policy support for selected food commodities/products;
- Conduct value chain analyses to diagnose and address gaps/constraints in the development of the identified commodities;
- Promote production, manufacturing, and consumption of nutritious and local foods; and
- Increase collaboration and coordination between MOA, MOH, and MOE among others through an appropriate coordinating mechanism.

PM3.1.2 Promote the Strengthening of Linkages between Agriculture and the Health Sector through Nutrition

In the expansion of market demands for domestic products through linkages to health and nutrition, the Government will:

- Promote nutrition-enhancing strategies that address the underlying determinants or basic causes of malnutrition and effectively and explicitly incorporate nutrition objectives, concerns and considerations, improve diets, and raise levels of food and nutrition security. Actions to be promoted in a deliberate attempt to explicitly improve diets and raise levels of nutrition are:
 - Making nutritious food more accessible to everyone or to specific targeted groups;
 - Supporting small scale family farmers; and
 - Empowering women by boosting their incomes, education and employment, health care, and resilience.
- Increase awareness of the importance of good nutrition education in schools and communities; and
- Promote and enhance alignment with the National Food-Based Dietary Guidelines and related actions by policy makers, food manufacturers, and consumers.

STRATEGIC OBJECTIVE 3.2: INCREASE SUSTAINABLE LIVELIHOOD OPTIONS FOR THE FOOD AND NUTRITION DEPRIVED.

Policy Measures and Actions are:

PM3.2.1 Expand Employment and Income Generating Opportunities for Marginalized Communities

This policy measure will involve the following actions:

- Conduct labor market demand analysis specific to agriculture to determine the areas for skills training;
- Increase access to education, vocational training, and self-upgrading in key but competitive economic areas based on the labor demand analysis for agriculture;
- Develop and implement interventions to enable poor individuals and households to formalize farm and farm-related asset ownership;
- Enhance micro-credit facility to provide credit for micro-enterprises and SMEs;
- Increase the support for small farmers and promote entrepreneurship and home food production; and
- Establish links between small farming agriculture and tourism and promotion of ecotourism.

PM3.2.2 Promote Home Food Production Utilizing Backyard/Container Gardening Technology

This policy measure will involve the following actions:

- Develop a special program of backyard and school gardening to increase food availability at the household and school levels;
- Provide technical support for increased production; and
- Improve post-harvest handling, storage, and value addition.

STRATEGIC OBJECTIVE 3.3: INCREASE THE PARTICIPATION OF YOUTH AND WOMEN IN THE DEVELOPMENT PROCESS THROUGH EMPOWERMENT PROGRAMS

Low profitability, poor security of land tenure, and high risks are just some of the reasons young people in Belize are leaving rural areas to seek jobs in Belize City and Belmopan, among other cities. This rural-urban migration could, in the not too distance future, result in a shortage of farmers for Belize. Given that agriculture is one of the country's largest economic sectors, generating broad economic development, and providing much of the population with food, poses a serious threat to the future of farming and to meeting the demands of a rapidly growing urban population. In addition,

growing youth unemployment, ageing farmers, and declining crop yields under traditional farming systems are enough reasons to make engaging youths in agriculture a priority.

Furthermore, single mothers are significantly represented as heads of households in Belize. This situation highlights the need for the development and implementation of differentiated policies to deal with this issue, especially women in rural communities.

Policy Measures and Actions

PM3.3.1 Develop and Implement Programmes for Increased Youth Participation

This policy measure will involve the following actions:

- Link youths through advances in information and communication technologies and social media to agriculture and agricultural opportunities.
- Improve agriculture's image. Farming is too often portrayed to young people as outdated, unprofitable, hard work, and unattractive. The Government of Belize shall, therefore, promote greater awareness of the benefits to be derived from agriculture as a career, highlighting in particular, opportunities for greater market engagement, innovation, and farming as a business;
- Strengthen higher education in agriculture. Training programs will be linked to advances in technology to facilitate innovation. This will have greater relevance to a diverse and evolving agricultural sector, with a focus on agribusiness, entrepreneurship, and leadership. The Government will promote and support the establishment of a youth dialogue platform such as a Belizean Chapter of the Caribbean Agricultural Forum for Youth (CAFY) or a similarly related regional association. The aim is to provide a platform for young people to discuss opportunities in agricultural development, share experiences, and advocate for greater youth engagement and representation;
- Facilitate access to land and credit resources. This will be effected through innovative land lease arrangements and credit programs. One such program will be the promotion of access to land and soft loans to youth who develop innovative proposals in agriculture; and
- Advocate for agriculture in the school curricula. Government will promote farming for profit in the primary and high school education. This could help young people see agriculture as a potential career.

PM3.3.2 Develop and Implement Programs Targeted for Women

This policy measure will involve the following actions:

- Establish a dialogue platform for women. The Government will promote and support the establishment of a Belizean Chapter of the Caribbean Network of Rural Women producers (CANROP) or similar related regional associations. There will be a platform for women to

- discuss opportunities in agricultural development, share experiences, and advocate for greater women engagement and representation;
- Support the provision of land and credit resources, basic infrastructure, and technical support for family agriculture and home grown production, including fruits and vegetables, root crops, small ruminants, poultry, apiculture and agro-processing; and
- Encourage women to become more entrepreneurs through training and technical assistance.

STRATEGIC OBJECTIVE 3.4: PROMOTE LINKAGES OF SMALL PRODUCERS TO SPECIALIZED MARKETS

The Government shall develop, test, and implement appropriate business models linking family farms and farmers groups to schools, Government institutions, and hotels through Government food procurement schemes.

Policy Measures and Actions

PM3.4.1 Strengthen the Governance Mechanisms

This policy measure will involve the following actions:

- Establish institutional mechanisms for coordination, dialogue and information, and knowledge sharing among stakeholders;
- Develop public purchasing policy for the purchase of locally produced foods from family farmers/farmer's groups/school gardens; and
- Support the development and implementation of public (schools and Government institutions) and private purchasing contracts for the marketing of family farmers/farmer's groups produce.

PM3.4.2 Strengthen the Marketing Framework of Specialized Markets

This policy measure will involve the following actions:

- Undertake a market/demand analysis;
- Support the development and implementation of production and marketing schedules;
- Provide technical support for the strengthening of market oriented, value added infrastructure to facilitate the consolidation, grading, packaging, and distribution of produce from family farms and farmers' groups;
- Conduct training and introduce basic farm management tools and record keeping for profit calculations; and

- Conduct training workshops for producers in understanding marketing information and good marketing practices.

PM3.4.3 Provide Technical Support for Increased Production, Productivity and Competitiveness for Small Producers Targeting Specialized Markets

This policy measure will involve the following actions:

- Support the implementation of technology packages for targeted crops;
- Validate appropriate technology packages and making them available to producers;
- Conduct training workshops for family farmers, farmers' groups, and school gardeners, utilizing technology packages as the base and introducing good agricultural practices; and
- Conduct training workshops in post-harvest handling of produce.

PILLAR 4: SUSTAINABLE AGRICULTURE AND RISK MANAGEMENT

Producers/processors in Belize in the Agriculture and Food Sector are exposed to risk of income loss and uncertainty in production. This is due to increased frequency and intensity of natural disasters and economic shocks, inadequate land and water management systems, the impact of climate change, high levels of food losses, praedial larceny, and the high cost of energy.

As a result of these challenges and in order to ensure sustainable management of the natural resources and risk associated with all activities along the value chain, the Government shall:

- Promote best practices in Disaster Risk Management (DRM) and Climate Change Adaptation (CCA);
- Create/Strengthen pro-environment policies and institutions and promote integrated management of the environment, including the use of renewable energy on farm;
- Support adaptation and mitigation strategies as a means of enhancing the stability of food and nutrition security over time among the vulnerable groups as a result of financial and economic shocks; and
- Promote strategies to combat praedial larceny and contraband.

STRATEGIC OBJECTIVE 4.1: PROMOTE BEST PRACTICES IN DRM AND CCA.

This objective will be achieved through the implementation of the policy measures and actions outlined below.

Policy Measures and Actions

PM4.1.1 Improve the Adaptation, Mitigation, Prevention and Preparedness of the Agricultural Sector (Crops, Aquaculture and Livestock, and Value Added Sub-Sectors) to Disasters and Hazards

This policy measure will involve the following actions:

- Support the revision and implementation of Agriculture and Food Sector Disaster Risk Management (AFDRM) Plan;
- Support the integration of AFDRM Plan into National DRM Plan;
- Support the development of national cropping, livestock, and fisheries plans taking into consideration prevailing weather hazards, crop zones, and agro-ecological conditions in order to reduce overall production risks; and
- Support the development of risk profiles for the main economic and food crops/livestock/fisheries.

PM4.1.2 Develop Comprehensive Agricultural Income Compensation and Risk Transfer Schemes

- Support the development and implementation of comprehensive agricultural income compensating and risk transfer schemes, including agricultural insurance; and
- Support the development and operationalization of a Disaster Emergency and Management Fund for the agricultural sector.

PM4.1.3 Establish a Mechanism for an Adequate Supply of Food and Other Agricultural Inputs in Times of Disasters.

These actions include:

- Establish an Agricultural DRM Incidence Response Sub-Committee, within the framework of the National Emergency Management Organization (NEMO);
- Develop and operationalize national emergency food plans;
- Develop action plans to ensure food security for vulnerable groups and locations; and
- Establish information platforms to monitor and evaluate key staple food commodities/products prices, demand, and supply situation.

PM4.1.4 Improve the Resilience of the Agriculture and Food Sector to Climate Change and Variability

The Policy actions assessing the risks/opportunities for agriculture associated with climate change are:

- Identify and explore livelihood options in the agricultural sector created by climate change;
- Identify and disseminate models/best practices for farm-based climate change adaptation;
- Support the identification, definition and development, and monitoring of resilience indicators;
- Disseminate educational materials to increase knowledge on climate change adaptation and mitigation; and
- Mainstream food and agriculture related climate change issues into the decision-making process at the institutional and producer levels.

STRATEGIC OBJECTIVE 4.2: CREATE/STRENGTHEN PRO-ENVIRONMENT POLICIES AND INSTITUTIONS AND PROMOTE INTEGRATED MANAGEMENT OF THE ENVIRONMENT

Several policy measures and actions will be implemented to ensure the sustainable management of the natural resources.

Policy Measures and Actions

PM4.2.1 Improve Land and Water Governance and Management Systems

- Develop and implement an action plan and related projects aimed at strengthening and enhancing land and water management systems;
- Develop and implement soil and water conservation measures for agricultural production systems;
- Develop and implement improved infrastructure for water catchments, storage, and distribution;
- Develop and implement action plans to enhance watershed management and reduce land degradation;
- Formulate, review, and reform Land Use Policy and Legislation;
- Formulate, review, and reform Water Policy and Legislation;
- Establish and strengthen national land and water information systems;
- Strengthen governance mechanisms for land zoning, land use planning, and land tenure in the context of national food and nutrition security and to ensure greater transparency and accountability;
- Develop and implement best practices for the management of fires related to agricultural land clearing in order to mitigate its adverse effects; and
- Support revision and updating of legislative and regulatory frameworks for the sustainable management of the forestry, fisheries, and genetic resources of Belize.

PM4.2.2 Promote the use of renewable energy

The Agriculture and Food Sector in Belize has been developing its renewable energy production capacity primarily in bio-fuels, solar, and wind. This development, however, has depended heavily on Government's support programs and incentives and support from strategic partners, with insufficient participation and efforts from the private sector. Although rising fossil fuel prices have improved renewable energy's market competitiveness, it should be noted that significant improvement of existing technology or the development of new technology is still needed for current bio-fuel production strategies to be economically competitive with existing fossil fuels. There is a general consensus that the uses of biomass feed-stocks such as corn and cassava should be well balanced among the needs for food security, animal feed, and bio-energy.

Actions are:

- Increase and promote the use of renewable energy throughout the value chain; and

- Increase the use of and access to financial incentives that promotes equitable use of renewable resources.

PM4.2.3 Support Development of Carbon Sequestration and Other Agro-Ecological Services through Good Agricultural Practices

This policy measure will target voluntary buyers who are driven to purchase carbon offsets for many reasons, but at the top of the list is a desire to combat climate change. With the overall aim of sustainable agricultural development, Government shall

- Support identification of opportunities and options for the Belizean strategy for sequestration;
- Promote reduced deforestation through intensification and increased productivity in areas under cultivation;
- Support identification of appropriate mechanisms for development of an Agro-ecological services business program via a portfolio of incentives for implementing environmental protection technologies and optimal use of natural resources for sustainable production; and
- Support Carbon-neutral certification by providing a robust framework and credit certification that aims to reduce its net carbon dioxide emissions to zero.

STRATEGIC OBJECTIVE 4.3: SUPPORT ADAPTATION AND MITIGATION STRATEGIES

This objective will focus supporting adaptation and mitigation strategies as a means of enhancing the stability of food and nutrition security over time among the vulnerable groups as a result of financial and economic shocks. It will be achieved through the implementation of the policy measures and actions outlined below.

Policy Measures and Actions

PM4.3.1 Improved National Capacities for Conducting Vulnerability Mapping

This policy measure will involve the following actions:

- Review existing national vulnerability and social protection policies and associated relevant legislative provisions, analyzing the institutional framework for their implementation and making the necessary recommendations for implementation;
- Analyze on-going social welfare and food access programs and their inter-linkages, within the framework of the “Right to Food” Assessment Guidelines and making recommendations for implementation;
- Compile a basic dataset of vulnerability/food and nutrition security indicators;

- Collaborate in training programs to build capacity in the use of the Food Insecurity and Vulnerability Information Mapping Systems (FIVIMS) to identify food insecurity, under-nutrition, and malnutrition at the household level; and
- Collaborate with FIVIMS to identify the vulnerable population in the country.

PM4.3.2 Establish a National Information Early Warning System

This policy measure will involve the following actions:

- Establish an integrated system that harmonizes and coordinates the collection of key food and nutrition indicators;
- Develop and utilize methodologies, tools, and techniques for the effective M&E of activities and assessment of the food insecurity, agro-meteorological conditions, plant and animal diseases, food product price, and marketing situation at a national level;
- Train relevant professionals in areas related to the analysis, interpretation and use of data/information for production planning and the development of intervention strategies, and
- Develop and implement a communication plan to disseminate accurate and timely climate, weather, and economic data/information related to agriculture.

PM4.3.3 Support Mechanisms to Reduce Poverty Levels and Provide Increased Opportunities for Women and Youth to become More Involved in the Agricultural and Food Sectors

This policy measure will involve the following actions:

- Increase access to financing for targeted women and youth;
- Increase access to land resources required by women and youth;
- Institute programmes to empower/support women and youth with required skills along the value chains in the Agriculture and Food Sector;
- Establish and strengthen a comprehensive database system of vulnerable groups and households;
- Establish Food Crisis Fund to cater to the needs of the most vulnerable during economic and natural shocks; and
- Establish trigger mechanisms and protocols for management of food crisis.

STRATEGIC OBJECTIVE 4.4: INCREASE USE OF STRATEGIES TO COMBAT PRAEDIAL LARCENY AND CONTRABAND

Several actions will be developed and implemented to achieve this objective. These are outlined in the policy measures and actions below:

Policy Measures and Actions

PM4.4.1: Improve the Legislative and Institutional Framework

This policy measure will involve the following actions:

- Prepare National Action Plans to combat praedial larceny and contraband to be accomplished through a participatory approach involving all relevant stakeholders;
- Review and strengthen legislative frameworks for enforcement and stiffer penalties;
- Improve enforcement of contraband and praedial larceny rules and regulations;
- Develop and implement public awareness through education and communication strategies; and
- Improve and implement more effective traceability systems including a farm registry and agricultural district mapping of production areas.

PM4.4.2 Improve the Technology Platform for Prevention and Detection

This policy measure will involve the following actions:

- Evaluate and introduce innovative traceability methods and technologies, if deemed appropriate to include GPS, DNA, and drones among others; and
- Develop and implement targeted programmes for alternative livelihoods.

PILLAR 5: GOVERNANCE - ACCOUNTABILITY, TRANSPARENCY AND COORDINATION

A framework for good governance and sound social and economic policy is vital for the sustained and systematic reduction of poverty and economic growth. Particularly, governance is good when the systems and processes are accountable, transparent, just, responsive, and participatory.

Unfortunately, the issue of governance is a major challenge to the Agriculture and Food Sector in Belize. Existing governance systems at the district, zonal, and national levels can benefit from greater levels of participation, transparency, accountability, evidence-based processes, and institutional and legislative frameworks.

Therefore, the Government's aim is to introduce policies that will result in the modernization of the institutional framework of the Agriculture and Food Sector. This will enhance efficiency, improve effectiveness and better coordination, and reduce "silos" effects while enhancing coordination, integration, and synergies within and among institutions.

Based on the comments and recommendations emanating from the stakeholder consultations held during the design of this policy, and in recognition of the governance challenges faced by the Agriculture and Food Sector of Belize, the Government shall:

- Strengthen institutional capacity, mechanisms, and integration processes for better planning, budgeting, and program delivery;
- Strengthen capacities of national, regional, and international cooperation partnership; and
- Promote access to reliable, timely, and accurate information for decision making.

STRATEGIC OBJECTIVE 5.1: IMPROVE PLANNING, BUDGETING, AND PROGRAMME DELIVERY

This strategic objective seeks to strengthen institutional capacity, mechanisms, and integration processes for better planning, budgeting, and program delivery.

Policy Measures and Actions

PM5.1.1 Increase its Annual Budgetary Allocation to the Ministry Responsible for the Agriculture and Food Sector

Current Government budgetary allocation to the sector represents approximately 1.6 % of the overall budget in 2014. In demonstration of its strong political will and commitment to the development of the Agriculture and Food Sector, the Government shall

- Increase in a phased, progressive, and targeted manner its budgetary allocation to represent 5 % of the overall public sector budget by 2030 to the Ministry responsible for Agriculture and Food Sector.

PM5.1.2 Strengthen Institutional Mechanisms and Integration Processes of the Public Sector

This will be accomplished by the following actions:

- Improve the Ministry's capacity in strategic planning, programme budgeting, and results-based implementation through an inclusive, participatory, and sustained approach;
- Strengthen the coordination, communication, and integration processes within the Ministry and across the various relevant institutions;
- Conduct a management audit of the Ministry responsible for Agriculture and government-related agriculture and food institutions to evaluate efficiency and effectiveness of their governance systems and accountability mechanisms;
- Establish a mechanism for the oversight of the goals and outcomes of the National Agriculture and Food Policy. Key stakeholders should include, but are not limited to, the Ministers of Agriculture, Rural Development, Health, Education, Social Transformation, and Protection and Trade;
- Establish broad-based National Commodity Development Committees, with zonal working groups, to drive the development of prioritized value chains;
- Establish five thematic working groups (TWGs) related to the pillars of NAFFP; and
- Strengthen the mechanisms to ensure adherence to public procurement procedures.

STRATEGIC OBJECTIVE 5.2: STRENGTHEN COOPERATION PARTNERSHIPS

This Strategic objective seeks to strengthen the capacities of national, regional and international cooperation partnerships

Policy Measures and Actions

PM5.2.1 Establish National Platform for Dialogue, Partnerships, and Decision Making

The following actions to be implemented are:

- Promote the formation of strategic public-private partnerships and strengthening existing ones for improved planning, decision making, and formulation of regulatory policies in the Agriculture and Food Sector;

- Conduct an annual accountability forum between the Ministry for the Agriculture and Food Sector and stakeholders for the review of annual sector results, constraints, and priorities for implementation and develop a revised blue print of the way forward; and
- Support policy and strategic development initiatives that facilitate stakeholder's participation and advocacy such as: NPESAP, Horizon 2030, GPRS/GSDS, BRADS, Energy, Forestry, and Fisheries' Policies.

PM5.2.2 Strengthen Capacities for National, Regional and International Cooperation

This policy measure will involve the following actions:

- Establish a Donors' Forum to support resource mobilization process;
- Establish an entity to serve as a "Think Tank" to generate concepts, projects, and programs that support the implementation of the NAFP; and
- Strengthen the capacity of the Ministry and other relevant national institutions to participate in international negotiations and in the application of international instruments.

STRATEGIC OBJECTIVE 5.3: DEVELOP AND IMPLEMENT AN EFFECTIVE AND EFFICIENT INFORMATION AND COMMUNICATION SYSTEM

Policy Measures and Actions

PM5.3.1 Improved Statistical Data Collection, Dissemination, and Management

Belize's current system for gathering statistical information on its agriculture sector is limited, but can be improved through the introduction of scientific sampling methods and other statistical methodologies. A more rigorous system of collecting, analyzing, and systematizing data will improve the statistical information on crop production, acreage planted, and crop forecasting estimates among others.

This policy measure will involve the following actions:

- Identify and prioritize the statistical data requirements and develop a relevant strategy;
- Implement a strategy with a focus of harmonizing data collection for agriculture, climate, and market information; and
- Mobilize resources for data and information collection, dissemination, and management.

PM5.3.2 Develop and Implement an Effective Information and Communication Strategy

This action will ensure continuous communication with stakeholders, effective partnerships with the media, and the production of relevant messages for policy makers, donors, professionals, and farm leaders.

This policy measure will involve the following actions:

- Identify and prioritize communication needs and develop a relevant strategy;
- Establish an implementable, rigorous M&E system that ensures a continual review of benchmarks/indicators, accountability, transparency and reporting on performance;
- Publish periodic reports on issues of importance to Agriculture and Food Sector arising out of the needs and lessons from the policy implementation;
- Develop communication products for targeted audiences and facilitate national stakeholder participation in relevant regional fora; and
- Strengthen and establish national platforms and mechanisms for dialogue, information exchange, and consensus building on national and regional policies and programs.

CHAPTER 7: ORGANIZATIONAL STRATEGY AND INSTITUTIONAL GOVERNANCE MECHANISM

7.1 OVERVIEW

The Agriculture and Food Sector is one of the main drivers of the economy of Belize and involves a wide range of stakeholders and institutions that deliver goods and services to the agricultural community. These stakeholders and their efforts require coordination in order to ensure efficiency and effectiveness in goods and service delivery and the optimal use of scarce resources. Thus, the active participation and role of the public and private sector agencies, NGOs and CBOs operating within the sector, international development partners, and donor community is critical for the successful implementation of the NAFP.

7.2 KEY STAKEHOLDERS AND INSTITUTIONS

The Agriculture and Food Sector has four categories of key actors.

- **Public Sector Group:** Includes relevant Ministries and Departments of Government of Belize and statutory bodies which make and implement public policies and programs.
- **Private Sector Group:** This category comprises of the entire spectrum of the productive sector which includes farmers/producers, agricultural cooperatives, commodity producer associations, market vendors, vegetable production groups, beekeepers, livestock groups, business service providers, and importers association. The main producer associations are the cane farmers, citrus growers, banana growers, livestock producers, fishermen cooperatives, aquaculture producers, cocoa producers, grain growers, organic producers, agro-processors, and agro-exporters among others.
- **Non-Governmental Organizations Group:** Includes the different types of NGOs and Not-for-Profit Organizations.
- **Community Based Group:** Includes village councils, women's groups, youth groups, and underprivileged or marginalized groups such as handicapped, senior citizen, and HIV-AIDS groups among others.

7.3 ORGANIZATIONAL STRUCTURES

7.3.1 Overview

The Ministry of Agriculture has the responsibility for the development of the Agriculture and Food Sector in Belize. Responsibilities for road infrastructure, ports, financing, trade and industry, quality infrastructure, local authorities, and administrative services lie within the purview of other ministries.

All these are essential support services necessary for the optimal performance of the Agriculture and Food Sector that can be better achieved through a well-coordinated, multi-institutional approach.

From this perspective, the MOA is committed to improve coordination and integration through the following interventions:

- Restructure and retool the Ministry and its statutory bodies for improved coordination in the implementation of NAFP;
- Continue the process of administrative decentralization to the Zonal and District levels in order to increase the efficiency of decision making and the delivery process of goods and service;
- Increase the use of information communication technologies in an integrated knowledge management platform that informs program planning and management to achieve greater efficiency, effectiveness, transparency, and accountability in the technical and administrative processes;
- Improve the data collection systems (agricultural statistics);
- Strengthen public–private partnerships through constant and structured dialogue;
- Train and engender positive organizational and service oriented integrity through well-trained human resources;
- Mainstream gender, youth, other social factors, and other cross-cutting emerging issues in agriculture and food development programs; and
- Improve communication products for greater awareness and advocacy related to policy action and delivery of results through the media, MOA, and other websites.

The Ministry will also ensure coordination with the private sector at the:

- **National level** – through the ASCG and Commodity Development Committees; and
- **District level** – through the District Agriculture Development Committees (DADCs).

It is imperative that districts develop their strategic plans for agricultural development. This needs to be done in a participatory manner to build consensus and ownership of the agricultural development process that will ensue from the business strategy. At the local level, the NAFP will be implemented through DADCs made up of sector Ministries and private sector stakeholders. The Government will appoint members of DADCs who will then choose an executive body who will serve on two-year rotation basis. The DADCs will be linked to the ASCG and Ministry's project implementation unit.

This mechanism will enable producer organizations, business associations, small, medium and large agribusinesses to assume a more proactive role in terms of coherent proposals for the implementation of the policy, the creation of intellectual property, the efficient and transparent use of public resources, and the monitoring of the policy's implementation process.

7.3.2 The Role of the Agriculture Ministry and Other Ministries

The NAFP will be implemented through the established structures of Government Ministries operating at the national, district, and community level. Ministries will be encouraged to collaborate with priority activities identified in the NAFP by incorporating pertinent activities in their respective medium-term work plans as related to the GSDS and MTDS. It is anticipated that funding will come from the Government of Belize, development partners, and the private sector among others. The expenditure frameworks and the medium-term plans will be harmonized with the respective development documents currently being implemented by the MED and Finance Ministry. This will then be aligned with Horizon 2030 and other Government development plans. Collaborating Ministries will also facilitate the enabling environment for the Agriculture and Food Sector to prosper. This will include infrastructural development such as roads, electricity (energy), availing appropriate technologies, negotiating favorable trade conditions for Belize's agricultural products, and ensuring a healthy farming population.

7.3.3 The Role of Agricultural Sector Coordination Group

The Agricultural Sector Coordination Group (ASCG) will be comprised of key stakeholders from the Agriculture and Food Sector appointed by the Minister to spearhead the implementation of the NAFP and Business Strategy. The Group will facilitate and add value to the reform process and help coordinate the efforts of sector Ministries and other stakeholders towards implementing the NAFP goals.

It will advise on strategic budgeting for the sector and participate in the review of subsector strategic and annual work plans to ensure that they conform to NAFP, Horizon 2030, GSDS, BRADS, the SDGs and other Government development agendas.

Specifically, ASCG role will be to:

- Drive developments in the agriculture sector and fast-track implementation of the NAFP in a coordinated and collaborative manner with Ministries and other partners;
- Recommend possible restructuring of the Ministry and related departments and organizations for greater impact and for the collection, analysis and dissemination of information on agricultural reform processes;
- Strengthen the local multi-stakeholder forums to enable them to better serve farmers and other stakeholders;
- Influence sector resource allocation to areas of highest impact;
- Initiate major studies and policy developments within the agricultural sector;
- Identify and recommend capacity building of stakeholders involved or affected by the agricultural restructuring process; and
- Monitor implementation of NAFP activities.

To fast-track interventions of the initial reforms, five thematic working groups (TWGs) will be established:

- Governance - Institutional, Legal, and Structural Reform
- Production, Productivity and Competitiveness Enhancement.
- Market Development, Access and Penetration.
- Food and Nutrition Security and Rural Livelihood.
- Sustainable Management of Agro-Ecological Systems and Risk management.

TWG's members include representatives from the private sector, NGOs and universities, directors/senior Government Officers from the Ministries, and development partners. Each TWG will be chaired by a senior representative from the public sector and convened by the MOA.

TWGs will be responsible for conducting in-depth analysis of particular priority areas of the NAFF. They will also prepare well-structured and coherent plans of action and appropriate programs for investment by the Government of Belize and its development partners. Additionally, these specialized technical groups will also assume the responsibility for guiding implementation, recommending and testing innovations within the sector, and preparing various strategic documents and their implementation frameworks.

7.3.4 Role of Private Sector Institutions

The private sector, as the engine of growth and development in the sector, has an important role to play in the implementation of the NAFF. This role is essential in providing physical and social infrastructure, production, processing, input and output marketing, imports and exports, and financial and other services. Through the formation of a Belize Agricultural Producers Federation (BAPF), private sector players will be able to organize along commodity boards to mirror the public sector arrangements and engage on issues or to lobby with Government on key policy issues and reforms. Key players/organizations within the agricultural sector include BSCFA and other sugarcane associations, BGA, CGA, GGA, Shrimp Growers Association, BLPA, BPA etc. which represent agricultural producers, and those small producer groups which are organized through the cooperative movement. Other private sector institutions include processors, marketing agencies, and farm input dealers that, through their profit-oriented nature, have survived but can neither be regarded as strong nor organized players.

To facilitate effective participation, appropriate reforms in the legal and regulatory framework will need to be instituted. This will increase the efficiency and effectiveness of the productive sector.

7.3.5 Development Partners and Regional Cooperation Agencies

Bilateral and multilateral donors have, for many years, conducted interventions in the form of technical assistance or direct financing within Belize's Agriculture and Food Sector. However, development partners continue to play an important role, particularly in spearheading new initiatives and carrying out pilot projects in support of the agricultural modernization and reform processes.

Development partners and regional cooperation agencies, therefore, have a critical role to play in the development and implementation of projects that provide innovative extension services and emphasize aspects of value addition and market orientation which are now embodied in this policy incentive framework.

It is envisioned that the development partners and regional cooperation agencies will adopt the NAFP as the roadmap for their future interventions in the agriculture sector based on a sector-wide approach to development.

7.3.6 Farmer Organizations

Farmer organizations include cooperative societies, commodity associations, enterprise-based groups, and community-based organizations. These organizations are important economic entities established to enhance farmer representation, to lobby and advocate on their behalf at various levels, and to make farmer needs and demands known to service providers and purchasers of goods. These organizations need information on issues affecting the agricultural sector that have an impact on the livelihood of farmers. Articulating demands and the requisite interventions to shape the policy environment have been the key challenges these organizations are facing; therefore, capacity building is required.

Representation occurs at various levels as does demand for precise information on relevant issues. Effective management strategies shall be put in place to enable inclusive participation of farmers and their organizations in the sector agenda which will empower them, thus, allowing them to benefit from economies of scale. This Policy will seek to utilize the Cooperatives Department, the support from BELTRAIDE, and International Development Partners to enhance farmers' capacity to participate in the dialogue platforms and to organize, generate, and use resources more efficiently and effectively.

7.3.7 Other Non-State Actors

Civil society continues to play an important role in many areas of the rural society. Civil society groups include NGOs and Community and Faith-based Organizations. The importance of these groups in the Agriculture and Food Sector has increased significantly over time. It remains a challenge to empower them to participate more effectively in implementing the Government's agricultural policies and strategies. This policy will seek to enhance civil society's capacity to organize,

generate, and use resources more efficiently and effectively and to enhance their contribution in addressing issues related to food and nutrition security in the context of poverty alleviation.

7.4 SUSTAINABILITY: IMPLEMENTATION MANAGEMENT

7.4.1 Overview

The implementation management process comprises of the following components:

- Targets and Phasing;
- Inclusiveness of Policies and Actions;
- Strategic Partnership Building and Collaboration;
- Resource Mobilization;
- Information and Communication; and
- Monitoring and Evaluation.

7.4.2 Targets and Phasing

The implementation framework shall be divided into three cycles of five year medium-term plans covering the period 2015–2030. The medium-term plans will contain the activities, implementation timeframes, responsible implementing agencies, and financing plan. They will be in harmony and synchronized with the strategic plans of each relevant Ministry that has close collaboration with the Agriculture and Food Sector. The cost of implementing each medium-term plan of the Policy will be contained in a financing or investment plan or an investment prospectus.

7.4.3 Inclusiveness of Policies and Actions

The policy instruments and measures will be developed and implemented to target those producers and processors who might not readily be accommodated in the Agriculture and Food Sector development agenda. Large, medium size, and small farmers, processors and trader/exporters will be targeted with a special focus on gender and youth.

7.4.4 Strategic Partnership Building and Collaboration

The NAFP is based on the establishment of effective alliances and partnerships among relevant public sector institutions, NGOs, private sector, local organizations, rural communities, and above all the international development partners. Thus, during the implementation management processes, the development of strategic partnerships will be emphasized through the construction of stronger relationships with selected national, regional, hemispheric, and global agencies and institutions. At

both the national and regional levels, efforts will be made to involve the private sector, civil society, and NGOs that are relevant and supportive of the development of the Agriculture and Food Agenda.

This strategy will adopt an integrated and well-coordinated cluster approach at national, zonal, and district levels to facilitate implementation, involving relevant partners. The clusters to be pursued at the various levels include:

National Level

- The public sector - multi-sectoral platforms will be established to implement the regulatory appropriate policy incentive frameworks.
- The private sector - will be engaged at all levels in the value chain as the principal vehicle for investment, commercialization, and sustainability. This would include primary producers, agro industry (including meat processors and feed manufacturers), exporters, importers, supermarkets, and service providers (including marketing and market related institutions).
- Farmer organizations, civil society, and NGOs etc. to engineer production and trade.

Regional Level

- At the regional level strong alliances will be established or expanded with institutions such as SICA, CARICOM Community and its Secretariat, CARDI, IICA, CEDA, CARPHA, CROSO, CAHFSA, CDB, CARIRI, CRFM, and FAO among others.

International Level

- PAHO, ILO, World Bank, IDB, IFAD, EU, African, Caribbean and Pacific Group of States (ACP), and the Republic of China on Taiwan among others to provide technical assistance, research and development, finance, and other services.

7.4.5 Resource Mobilization

The cost of implementing the policy measures and actions will require significant investment which is expected to be shared among the Government of Belize, the private sector, Public-Private Sector Partnerships (PPPs), and development partners. It is anticipated that the Government of Belize will increase its budgetary allocation to the Ministry responsible for the Agriculture and Food Sector from 1.6 % of overall budget to 5 % of total budget during the policy implementation period. Substantial support is expected through bilateral and international collaboration. However, other financial instruments must be explored as the reality of budget support may not materialize in the near future given the country's public debt and recent debt restructuring. Possible strategies for resource mobilization include:

- The establishment of PPPs that can bring several benefits including:
 - Cost savings;
 - Increased synergies with each organization focusing on their core competencies;
 - Greater consensus and partnerships; and
 - Less duplication and greater sustainability of project outcomes.

- Creating and operationalizing an Agricultural Development Fund as a new mechanism for investing in the agricultural sector. It is anticipated that the fund will focus on strategic issues and areas stipulated in the Business Strategy. The fund will cover areas that are outside the budgetary provisions that are priority and offer high rates of return to investment; and
- Other soft resource mobilization strategies will emphasize the:
 - Conducting of training sessions for its strategic partners, stakeholder clients, and MOA staff on project cycle management, particularly project preparation;
 - Facilitation of the development of a National Network of Project Cycle Management Specialists;
 - Facilitation of the establishment of Donors Forum as a framework for resource mobilization; and
 - Development of MOA own resource mobilization capacity and capability to ensure adequate resources to achieve policy implementation.

7.4.6 Information and Communication

The Policy measures and actions stated in Strategic Objective 5.3 will be followed.

7.4.7 Monitoring, Evaluation, and Reporting

Based on the recommendations of stakeholders, the NAFP will emphasize M&E as a core function of the implementation process. In this context, an effective results-based M&E will be implemented to ensure results are achieved and that progress is measured along the implementation path. The M&E system will be utilized to evaluate how well financial expenditures match outputs.

The responsibility of the M&E will be vested in the ASCG who will plan and supervise the monitoring process. They will aim to ensure that the implementation of the NAFP remains on track and to adopt lessons learnt. Additionally, an accountability seminar will be held annually to report back to stakeholders, and at least every five years, an objective, systematic, and comprehensive external evaluation will be conducted to determine the effectiveness, efficiency, relevance, impact, and sustainability of the policy interventions. Thus, the evaluation results will be used to prepare the next 5 years medium-term implementation plan.

It is expected that the MOA will supervise the implementation and evaluation of the NAFP. This will entail strict adherence to inclusive and participatory planning and evaluation methodologies, coordinating specific reviews of the NAFP, liaising with FAO and IICA for technical assistance when needed, ensuring timely submission of reports and follow up on the recommendations of the M&E system.

Developing an M&E framework is an important first activity that is to be undertaken in direct consultation with targeted users of the monitoring information and with direct reference to the logical framework of the NAFFP.

The M&E framework will cover the following items:

- Performance and impact indicators that are SMART;
- Frequency of measurement of each indicator;
- Baseline information and data needed for each indicator;
- Information and data transformations required to construct the indicator;
- Source(s) of the needed information/data and methods of obtaining the information/data;
- Responsibilities for producing, analyzing, and disseminating each indicator; and
- An assessment of information/data availability and comparing the results against the monitoring framework to identify information/data and/or capacity gaps.

In implementing the M&E framework, an incremental approach will be used, that is, in the first phase, a minimum set of core indicators will be defined based on the availability information. The analysis of this minimum set of indicators will, nevertheless, provide a meaningful story. In time and in subsequent phases, the set of indicators can be expanded as additional areas for investment will become clear to fill information gaps and enhance monitoring capacities.

ANNEX 1: DESCRIPTION OF THE AGRICULTURAL PRODUCTION SYSTEMS

Traditional or Milpa – This historic system consists of cutting and burning forest and planting food crops as subsistence for one or two years before the land is left to recover under ‘tumbledown’ fallow. The main staple food crops grown are corn, rice, and beans. These are intercropped with cucurbits, plantains, yams, coco-yams, and sweet potatoes. This farming system is normally found in the rural areas of all districts where the farmers have limited opportunities to capitalize their operations.

Small Commercial Farms for Domestic Markets - The principal characteristic of this system is that it represents a transition between milpa and mechanized production. It primarily uses family labor. The land is leased from the government and is usually prepared mechanically. Also it is usually located near ponds and rivers to allow for easy access to water. All other production practices are done manually by the family (occasionally hired seasonal labor) whereas the women are responsible for marketing. Technological inputs such as improved seeds and inputs are widespread and irrigation is by hand. Output is staggered to provide a small but steady stream of income. Farms are permanent and located near roads that increase access to transportation. Subsystems are:

- Domestic crops - plantains, rice, corn, beans, and peanuts grown in all districts;
- Vegetables - potatoes, onion, cabbage, tomatoes, sweet peppers, and carrots mostly grown in Cayo, Orange Walk, Corozal, and Belize districts;
- Fruit Trees - mangoes, coconuts, sour-sop, guavas, grapes, avocado, and cashew grown throughout the country; and
- Livestock - beef, pigs, poultry, eggs, dairy, and sheep (local breeds and some improved breeds raised on mostly natural pastures) mostly in Cayo, Orange Walk and Corozal districts.

Small Commercial Farms for Export – The small farmers have been able to break into the commercial economy of traditional crops such as sugar and citrus. These small commercial farms are generally family-owned, occupying approximately 50 acres and use family and hired labor during harvest. Normally the land is cleared by hand and then planted and mechanized after a few years. Most farms are owned by persons having other employment. There is widespread use of improved technology and inputs. Two subsystems are identified:

- Traditional crops – sugarcane and citrus primarily grown with other food crops on a smaller scale. Located mostly in Cayo, Stann Creek for citrus and Corozal and Orange Walk for sugarcane; and
- Non-traditional crops – papayas, hot peppers, cacao which are mostly found in Corozal, Orange Walk, Cayo and Toledo for cacao.

Large Commercial Farms and Estates – These farms are characterized by having large acreages and involving large initial investments as well as secured land tenure. They are highly mechanized and include technological inputs. The principal characteristic is that they have a well-established

marketing system. In this category, Mennonites who grow grains and other non-traditional export crops, such as papayas, cowpeas, and beans are included. The Mennonites are concentrated in the Cayo and Orange Walk Districts. The traditional crops grown on a large scale are in Stann Creek, Orange Walk and Corozal.

ANNEX 2: CARICOM EXPORTS FOR BANANA AND SUGAR FROM 2002-2012

Table1: Value of Banana and Plantain Exports from CARICOM 2000-2012 in (US\$)

YEAR	Belize	Dominica	Jamaica	St. Lucia	St. Vincent & The Grenadines	Total
2000	18.90	12.65	22.89	21.37	18.01	94
2001	21.40	8.47	18.27	33.25	13.11	95
2002	16.78	8.34	17.55	21.77	14.92	79
2003	26.28	5.90	18.85	15.88	3.41	70
2004	26.18	7.41	12.70	20.85	11.88	79
2005	21.35	7.14	4.69	15.40	10.24	59
2006	25.29	7.60	13.41	17.54	9.07	73
2007	20.74	5.23	9.22	14.91	9.25	59
2008	33.36	5.52	0.038	21.17	4.22	64
2009	33.35	4.76	0.024	23.07	3.97	65
2010	38.28	2.71	0.001	11.97	3.02	56
2011	31.68	0.37	0.062	4.66	0.35	37
2012	47.44	0.43	0.11	4.40	2.74	55

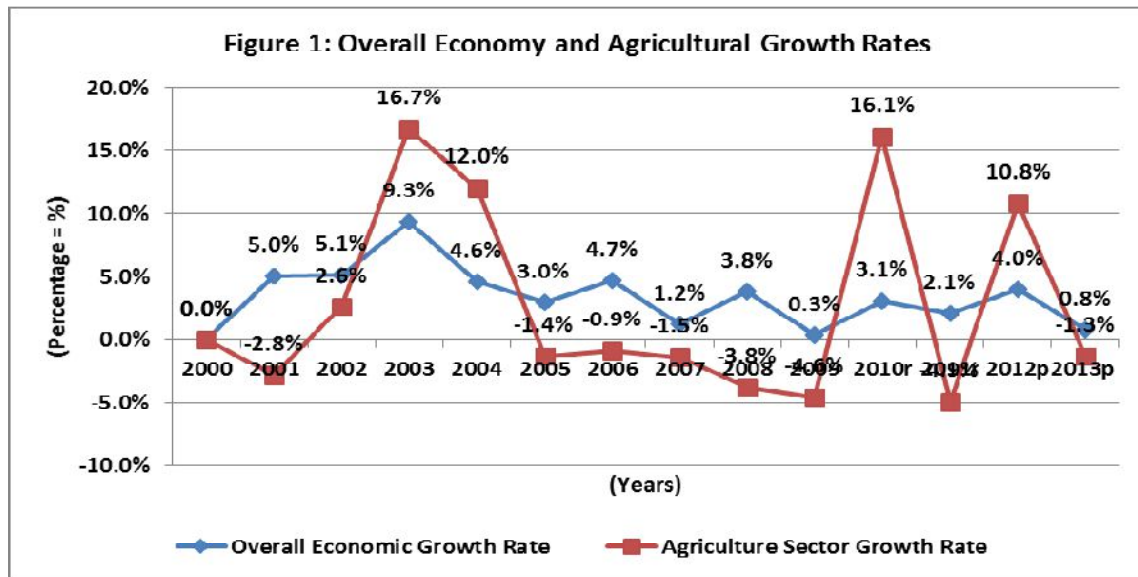
Source: FAOStat 2013

Table 2: Value of Sugar Exports from Caribbean Countries (US\$) 2000-2012

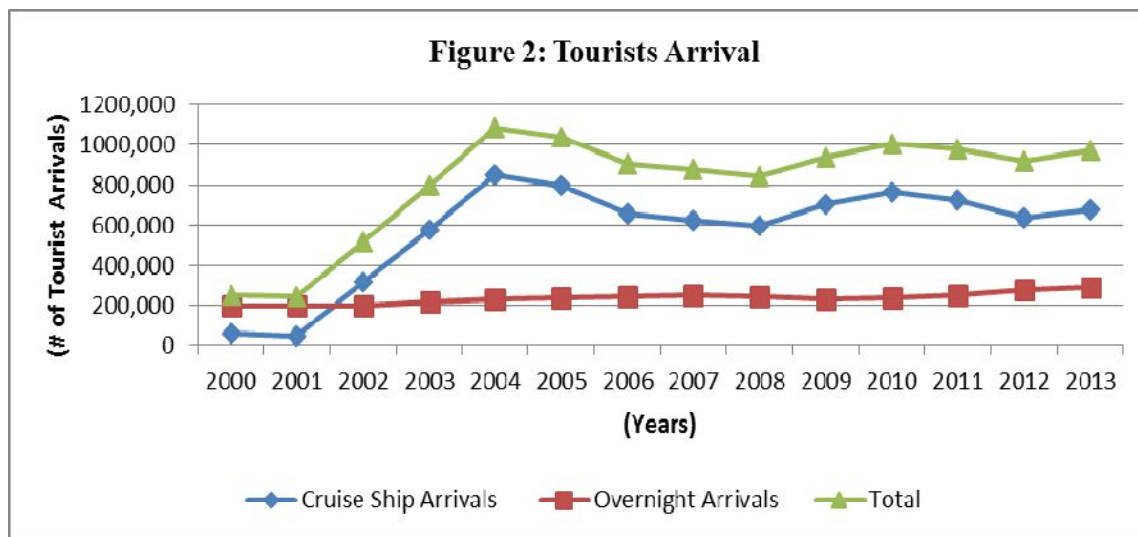
YEAR	Barbados	Belize	Guyana	Jamaica	St. Kitts & Nevis	Trinidad & Tobago	Total
2000	26.64	34.43	108.68	83.3	5.84	36.44	295.33
2001	22.02	28.39	89.28	70.5	6.45	26.41	243.05
2002	18.84	31.39	106.93	66.15	7.20	20.81	251.32
2003	20.50	31.97	101.82	66.3	7.23	12.87	240.69
2004	22.45	28.48	75.50	98.14	11.77	28.77	265.11
2005	22.18	26.03	126.62	76.80	0	25.56	277.19
2006	19.62	42.51	118.05	89.69	0	23.03	292.90
2007	18.65	42.99	162.72	100.5	0	16.96	341.82
2008	22.49	35.43	138.72	102.32	0	0	298.96
2009	18.11	38.75	115.54	72.33	0	0	244.73
2010	9.55	29.36	89.14	44.25	0	0	172.30
2011	10.59	45.06	101.51	62.16	0	0	219.32
2012	12.24	53.8	136.13	94.14	0	0	296.31

Source: FAOStat 2013

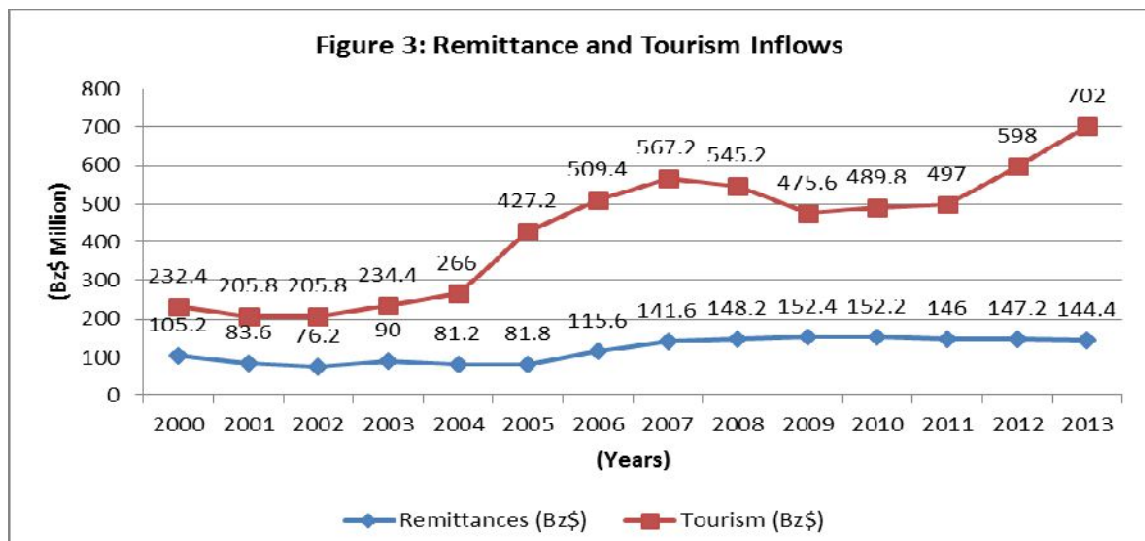
ANNEX 3: GRAPH OF MACRO-ECONOMIC ENVIRONMENT 2000-2013



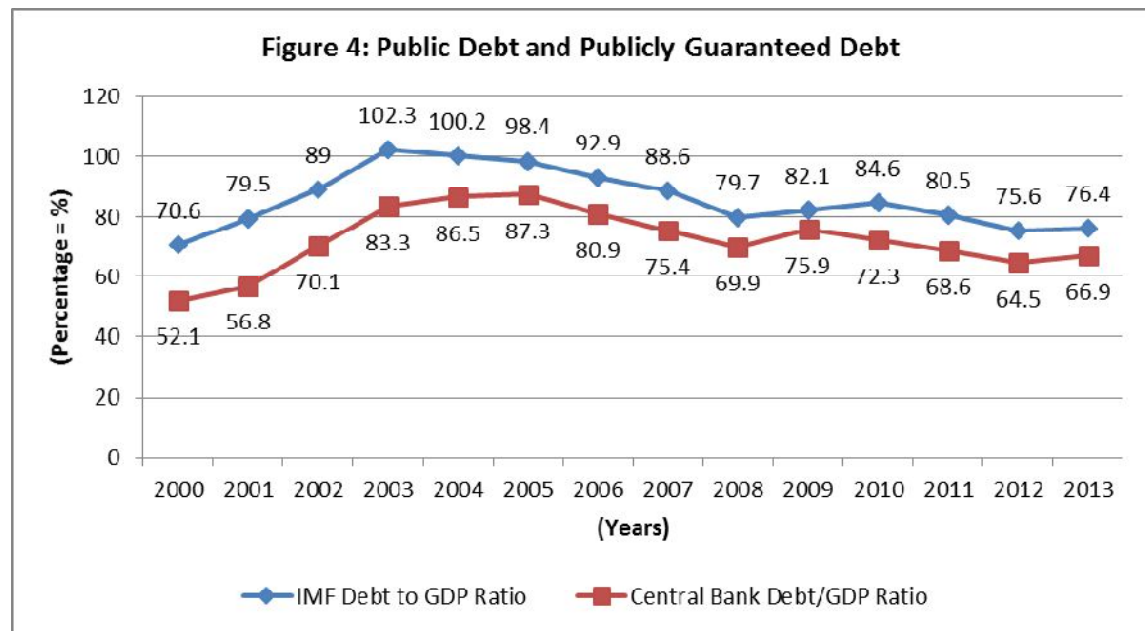
Source: SIBstat 2013



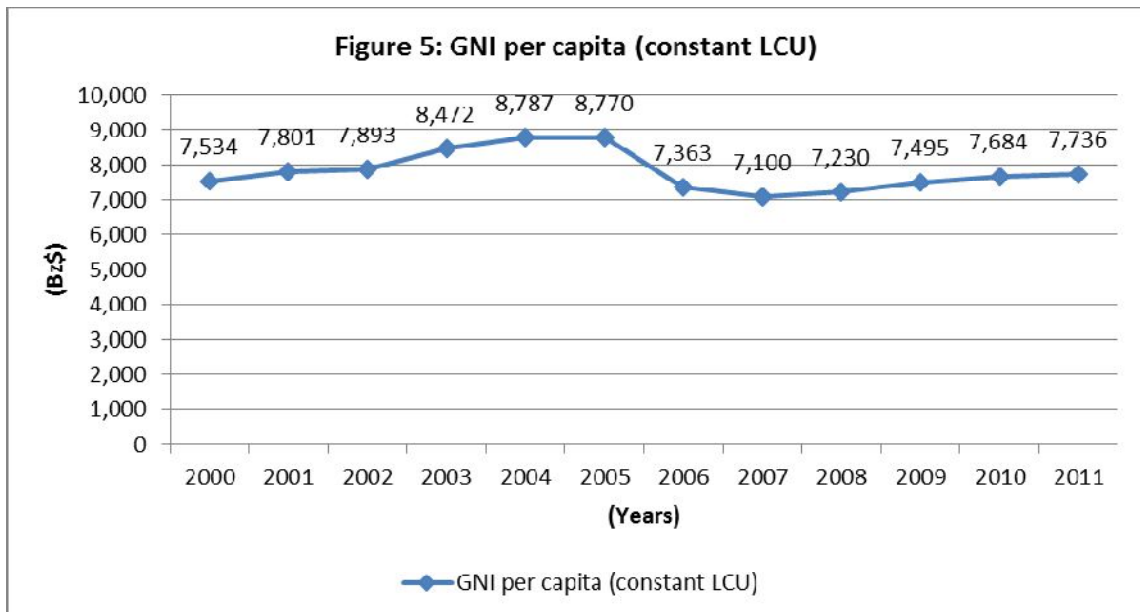
Source: SIBStat 2013/BTB



Source: Central Bank of Belize (CBB) 2013



Source: Central Bank of Belize 2013

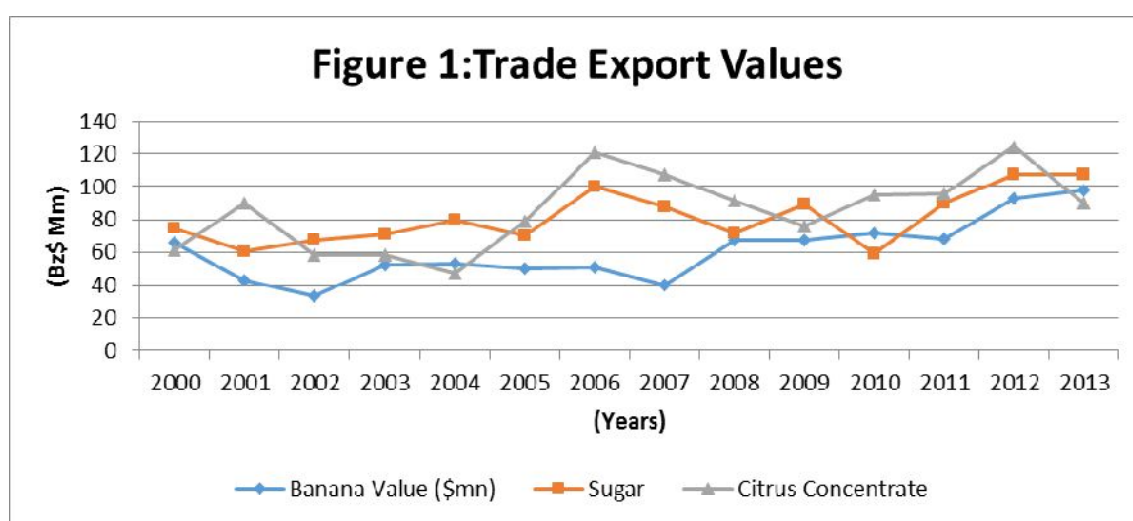


Source: World Bank Database 2011

ANNEX 4: MAIN CONCERNS AND ISSUES RAISED AT THE CONSULTATIONS

A4.1 Trade

The Ministry of Trade and Investment and BELTRAIDE play lead roles in trade and trade negotiations. The Belize Chamber of Commerce and Industry (BCCI) also represents the interest of the private sector in trade issues. BELTRAIDE has developed an export strategy and provided support to micro, small, and medium enterprises (MSMEs) to allow for their participation at trade shows. They have also assisted in the preparation of business plans, provided guidance for investments, and facilitated with establishing Export Processing Zones. The values of the three most important agricultural exports and trends over the 2002 -2013 period are presented in Annex 4 Figure 1.



Source: SIBstat 2013

Notwithstanding significant improvements in agricultural export over the period under review, several weaknesses associated with the trade platform have been identified which include:

- Limited mechanisms in place that allows stakeholder participation in policy/export related strategy discussions, on-going trade negotiations, and/or economic integration efforts;
- Limited market intelligence information and projections of agricultural commodities that limits capacity to negotiate effectively;
- Limited skills and experience in trade negotiations that yield the best opportunities for local producers and agro-processors;
- Limited support mechanisms in place that allow the effective utilization of Partial Scope Agreements;
- Differences in fiscal incentives for MSMEs;
- Lack of proper anti-dumping legislation to protect the food industry;
- Limited franchise opportunities for entrepreneurs with innovative enterprises;

- Limited knowledge and promotion on the development of PPP. (There is the need to conduct cases studies of good local experiences in PPP e.g. WWF and Shrimp Producers, and learn from these experiences);
- Loss of preferential markets for traditional crops;
- Limited branding of agricultural products e.g. using IPRs, GIs; and
- Limited information on the regional demand of agricultural products.

A4.2 Marketing and Market information

There are several institutions and platforms in Belize impacting positively on markets and marketing issues. One of these is the BMDC which is a statutory body that exists to support producers and agro-processors with marketing. Similarly, BCCI is a private sector organization that supports private sector in marketing issues and in trade negotiations. It provides a forum for the private sector to present their issues, recommendations and lobby with the public sector for an improved business environment. Through initiatives of the private sector, an agriculture bulletin “The Belize Ag Report” is published quarterly which provides information on commodity prices and current issues in the agriculture sector. The MOA also compiles and publishes a weekly price list of commodities that are available at the differing local markets throughout the country. The Cooperative Department which has offices in all six districts also provides some technical support in marketing to cooperatives.

Several limitations identified with the current market and marketing information system include:

- Limited capacity of BMDC to carry out its mandate as stated in its ACT to effectively facilitate marketing and distribution of commodities;
- Weak emphasis on the value chain approach for commodity development;
- Limited information on demand and supply of agricultural commodities and forecasting;
- Underdeveloped marketing platforms for producers and buyers to interact e.g. buying centers;
- Lack of market-led research within the country to provide access to necessary production and related technologies for market segment targeting;
- Little or no differentiation of commodities, little use and implementation of grading and standards that fetch producers best prices for high quality products;
- Limited inter-sectoral linkages e.g. agriculture with tourism to foster marketing of agricultural commodities;
- Limited value added and agro-processed products to penetrate new and other niche markets/segments and to reduce food losses and generate additional income for smallholders (also as mechanism to address import substitution);
- Limited producer associations or clusters exist to achieve economies of scales;
- Limited attention and support given to agricultural issues by the BCCI. It is suggested that consideration be given to the establishment of a Chamber of Agriculture;

- Controlled prices not conducive to competitiveness in agriculture e.g. control price in rice; and
- Insufficient liaison officers in Ministry for key agricultural sectors e.g. aquaculture, grain producers, livestock, etc.

A4.3 Over-regulation and Taxation

The issue of over-regulation and taxation is a recurring one that is discussed in most fora in Belize. The Government has zero-rated or tax exempted a number of basic food items as well as certain agricultural equipment and inputs. Notwithstanding, there is a general consensus within the private sector that the regime of investment incentives is not conducive for enhanced participation. Many producers feel that regulations are implemented on a “selective enforcement” basis and that most Ministries interpret the regulations differently and as such the response time is lengthy. An example frequently cited is the Environmental Impact Assessments (EIAs) that are needed to start new farming operations. However, they are extremely costly to complete and are often considered another deterrent to business as they are not applied fairly (selective enforcement).

Some of the other salient issues identified by stakeholders are:

- Taxation on inputs and not on production causes the producers to take all the risks and reduce their competitive ability;
- Taxing local producers while some imported goods such as milk and cheese and EPZs are being exempted provides an uneven playing field for local producers;
- Over taxation on packaging material, bottling and other essential inputs is contributing to the lack of competitiveness in agro-processing;
- Selective enforcement of standards and regulations by BAHA, BBS, and other agencies e.g. domestic production subject to higher standards than imports;
- Need for greater coordination among departments and Ministries to ensure that environmental regulations enhance and facilitate producers instead of being overly restrictive;
- Inconsistent enforcement of environmental regulations (large farmers) and overregulation of small farmers (cost burden);
- Need for a comprehensive taxation review as present taxation system does not favor producers. Taxes on inputs need to be lowered or removed as they raise the cost of the final product. As is, the system allows Customs Department to interpret and determine taxes on goods and services at their discretion leading to an inefficient system; and
- Agriculture and food production cost is very high in Belize compared to the neighboring countries.

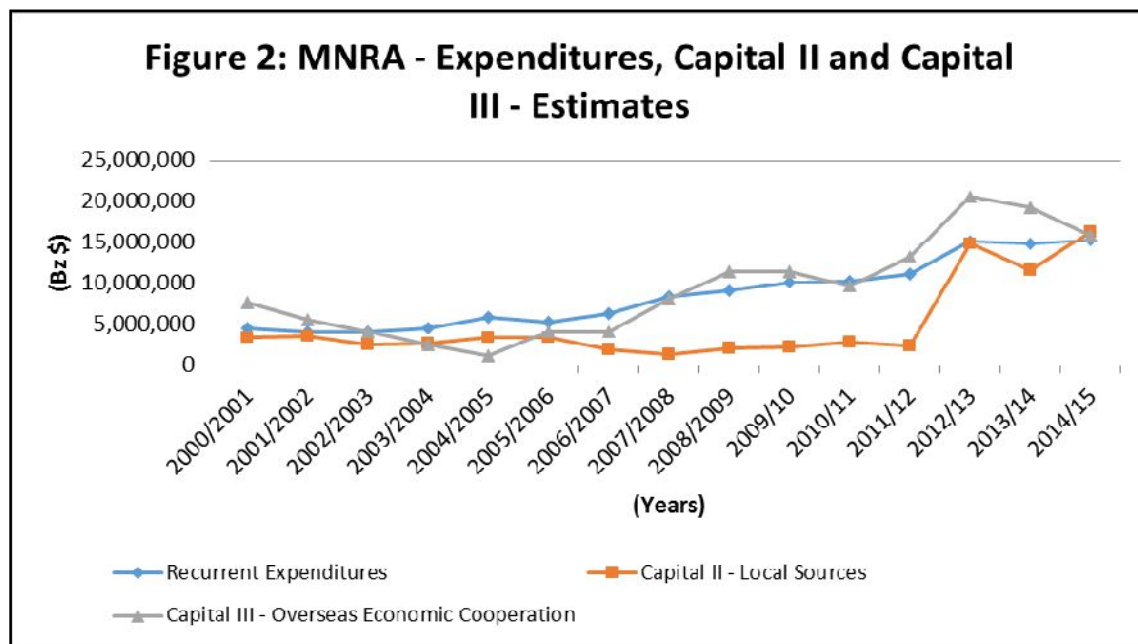
A4.4 High Production Cost

Production cost is very high in Belize compared to the neighboring countries. Factors contributing to this high production cost include:

- Labor is two to three times more expensive in Belize than in Central, America and Mexico;
- Labor productivity is low;
- The cost of fuel has now surpassed the BZ\$12/ gallon level, hence all fuel-based equipment services, inorganic inputs, transport and distribution costs have been impacted by the rise in energy costs;
- Credit for agriculture is between 15 and 20 % per annum including fees; the risks make the cost of credit prohibitively high. In fact small farmers cannot afford credit; and
- High costs of electricity, telecommunications (internet), and a limited amount of secondary and feeder roads in rural areas, all contributing to high costs of production and distribution of food.

A4.5 Credit and Financing

The Government's budgetary allocation represents the major source of consistent funding for the MOA, representing in most years over 60 % of total budget. This allocation has shown an upward trend over the period under review (Annex 4 Figure 2). Unfortunately, most of the Government allocated funds are used primarily to cover the MOA recurrent expenditures.



Source: GOB Draft Estimates for Revenue and Expenditures 2014/2015

Donor funding, especially loans, provides an important source of funding to the MOA, particularly in enabling the Ministry to carry out additional investments in the sector.

The mobilization of external funding for the sector has been highly variable and concentrated with two major donors, the EU and IDB.

DFC provides development financing to small, medium, and large producers and entrepreneurs. Some Credit Unions are actively promoting credit schemes for small producers and entrepreneurs as well. Through the Credit Union League, IFAD provided funding to support small producers and businesses. The Banks tend to provide credit to more stable and low risk agricultural activities and in instances where limited supervision is required. Some commercial banks try to bridge the gap of information by inviting key stakeholders on a monthly basis to share information on their sub-sector with the Services and Loans Officers. The Banks are amenable to partnerships that have a comprehensive model – finance, insurance, tech package, and market. For example, there exists within the banking sector a facility for export financing through an IFC of the World Bank. However, this has not been utilized due to the limited knowledge in accessing this mechanism.

Affordable and accessible credit and financing is an essential part of development and thus the following limitations have been identified:

- Limited credit at affordable interest rates not readily accessible to small/medium-large producers;
- Limited practice to finance commodity production based on comprehensive business plans/proposals that include all labor costs;
- Limited skills among producers and agro-processors to prepare viable business plans/proposals and access business financing;
- Limited export financing to bridge gap in expenses between delivery and payment of commodity; and
- Central Bank policies need to be more supportive of the productive sector.

A4.6 Land Availability and Security

The Ministry of Natural Resources looks after all issues related to land and is continually upgrading its system to enhance land transactions. A Land Use Policy has been developed but needs to be fully implemented. Due to increased demand for land for agriculture, attention needs to be given to land use and land tenure. Two major weaknesses have been identified as impacting negatively on the sector:

- There is limited zoning of land according to its suitability for agriculture; and
- Limited policies and enforcement of regulations that deter land speculation.

A4.7 Labor and Labor Issues

Although the unemployment rate in 2014 is projected at 11.1 %, industries such Bananas and Citrus rely significantly on migrant workers to carry out harvesting and other agricultural field work during

critical periods. Access to this pool of migrant workers enhances the competitiveness of the agriculture sector. At present, there are two main issues that must be addressed:

- Unclear policy on temporary migrant workers for agriculture activities; and
- Lack of a database that shows the level of available workforce to inform employers.

A4.8 Drainage and Irrigation

The Ministry has developed an Integrated Water Management Resource Policy and established a National Integrated Water Resource Authority as the overarching agency responsible for water management issues. There is a Hydrology Section that provides technical support to the Authority.

In agriculture, a significant percentage of rice production as well as banana for export is grown under irrigation. Similarly high value cash crops such as papayas, onions and winter vegetables are also grown under drip irrigation. As a result, partners are supporting the Ministry in developing potential investment plans to expand the irrigated agriculture. At present, only 8 to 10 % of cultivated land is presently irrigated. Several factors are responsible for this low acreage coverage including the following:

- Limited institutional and technical capacity in the public sector to promote and support the implementation of the Draft Irrigation Policy and Strategy and to provide technical support;
- Limited field data collection on performance of present irrigation systems
- Lack of topographical maps with adequate contour intervals and watershed information needed to develop efficient and reliable water management systems for agricultural production;
- Limited public incentives and access to capital investment at affordable interest rates for drainage and irrigation schemes; and
- Limited investments in water storage systems for agricultural production.

A4.9 Infrastructure

Major highways from North to South are in good conditions. Most parts of the country have access to communication and transportation. Significant weaknesses identified in the infrastructural area include:

- The quality of the road network in the rural areas, especially in the sugar belt, is considerably inferior to other parts of Belize, constraining rural development and limiting poverty reduction and competitiveness. Increased vehicle operating costs and travel time, high post-harvest losses, limited market access and low road safety are the economic consequences.
- Inadequate rural infrastructure which results in product losses and high transport costs (especially farm-to-market roads);
- Inadequate storage facilities, packing facilities e.g. onions;
- Limited distribution systems and buying centers; and

- Inadequate deep water port facilities and limited shipping to the Caribbean.

A4.10 Research and Development

Over the past decade, the Ministry has developed strong working relationship with CARDI Belize and ROC Mission to carry out adaptive research. CARDI has provided significant support with varieties of grains and pulses. ROC Mission has worked extensively in vegetable and fruit productions along with the research staff of the Ministry. The Research Station at Central Farm has also built a working relationship with some suppliers of seeds and chemicals to carry out many varietal validations. The Ministry's Research Section also interacts with other research agencies both locally and regionally such as CREI, University of Belize, SIRD, etc. The Ministry is also recipient of scholarship opportunities to train personnel through IICA, CATIE, and Taiwan among others. However, significant weaknesses identified in the Research and Development Agenda include:

- Lack of coordination among local research institutions and key stakeholders to identify research priority areas that will impact the agriculture sector. It was suggested that NCCARD be revisited;
- Lack of adequate platforms to share various research findings and exchange experiences with the agriculture sector;
- Limited human and financial resource allocation in the public sector to implement research plans; and
- Insufficient collaboration with regional and international institutions to strengthen national research.

A4.11 Technology and Extension Services

The Ministry has an Extension Service in all six districts that provides technical support to farmers. NGOs and private sector organizations also provide extension services to their clients e.g. Citrus Growers Association, SIRD, BSCFA, SHI, Plenty Belize, Ya'xche Conservation Trust. However, several weaknesses identified include:

- Limited appropriate postharvest technology imparted to producers;
- Lack of a modern Extension Service that uses tools as ICT and other technologies;
- Limited technologies and lack of promotion of modern and appropriate technologies that increase the competitiveness of producers e.g. agro-processing techniques, protected covered structures, solar, wind power, hydro-rams, fertigation, high yield crop varieties, integrated farming systems, improved livestock farming practices among others;
- Insufficient efforts in promoting and working with cluster of producers; and
- Insufficient efforts to build resilience among producers especially in the face of climate change and climate variability.

A4.12 Food Security and the High Food Import Bill

Belize has made significant progress in addressing its food and nutrition insecurity situation. It has developed a National Food and Nutrition Security Policy and Strategy that are currently being implemented. Belize has also developed a Food Based Dietary Guideline with the technical assistance of PAHO, CFNI, FAO and UNICEF. The NGOs operating in the country have worked with women and youth in promotion of backyard gardens, and with the Ministries of Agriculture (MOA) and Education in the development and promotion of school gardens. The country is self-sufficient in corn, beans, rice, beef, pork, poultry, eggs and some vegetables. As indicated earlier Belize is classified as a Net Food Exporting Developing State.

In spite of these efforts, statistics show that there is significant importation of processed foods that are consumed locally and the high consumption of these processed foods is often correlated to obesity and Non-communicable Diseases (NCDs). Latest available data shows the level of infant mortality (<5 years) to be 18.3 (per 1,000), the prevalence of undernourished at 6.4 % and overweight/obesity (>30 years) estimated at 11 % for male and 24 % for female²⁶.

Several areas identified by the MOA in order to improve the existing food and nutrition security situation in the country include:

- Improving the collaboration with Ministry of Health and Ministry of Education and Youth (MOEY) to promote the Food Dietary Guideline that promotes the consumption of fruits, vegetables, pulses, and other local foods. This will have the spinoff of greater demand for agriculture goods and expanded market for the local producers;
- Strengthening the collaboration with MOEY to promote family agriculture and school gardening at an early age in schools;
- Increasing the level of funding to support food and nutrition programmes for the needy;
- Promoting family farming and entrepreneurship in the rural communities;
- Strengthening of the inventory of slaughtering facilities to raise the level of food safety in the local markets and for traceability purposes;
- Ensuring the enforcement of the Food Safety Act.; and
- Developing and implementing a carefully targeted strategy of 'competitive import replacement' given the resource endowment of Belize in order to address the high and growing food import bill.

A4.13 Climate Change and Risk Management

Through the Caribbean Community Climate Change Centre (CCCC), a National Agriculture Sector Adaptation Strategy to address climate change was developed for Belize. The National

²⁶ Belize Ministry of Health Report 2014

Meteorological Office also publishes agro-meteorological and regional climatic information on a quarterly basis, and continually provides advisories on droughts and flood situation. In times of natural disasters, NEMO in collaboration with the MOA conducts damage assessments of the agriculture sector. With the assistance of Global Climate Change Alliance (GCCA) and FAO among others, the Ministry established pilot projects in agricultural adaptation practices to climate change.

While this issue was not frequently mentioned at the consultation, the issue of praedial larceny – the theft of agricultural produce – is widely acknowledged in Belize as a practice that is negatively impacting the development of the Agriculture and Food Sector. Praedial Larceny in Belize has developed from petty stealing to satisfy household food insecurity to the theft of large amounts of agriculture produce. Stolen produce often makes its way into legitimate market channels. The frequency of incidences and the highly organized and often violent behaviors of thieves have increased. Agricultural producers (crop, livestock, marine fishers and aquaculture producers) suffer heavy losses and are hesitant to invest and expand their enterprise. Praedial larceny is, therefore, a major disincentive to agricultural investment in Belize. The issue of praedial larceny is exacerbated by the porosity of Belizean borders. Unlike other risks in agriculture, risk management of praedial larceny requires significant inputs from the criminal justice system, traceability systems for proof of ownership under the law, information sharing for deterrence and for capacity building, networking and intelligence gathering on the nature and reduction of the risk.

Belize, although not situated in that part of the Caribbean region that is highly prone to natural hazards, including hurricanes, droughts, landslides, earthquakes and volcanic eruptions, has suffered severe losses to natural disasters over the last decade. In fact, these losses from natural disasters are rising due to the increased risk as a result of the rise in the incidence and strength of hazards and the growing vulnerability of agricultural production practices. The projections of more frequent and intense hurricanes are already being observed in the increasing frequency and severity of extreme weather events.

Belize is a low-lying country and is extremely prone to flooding. For example, approximately 60 % of sugar cane is planted on low lying poorly drained land prone to flooding, where over 12,000 acres or 20 % of sugar cane lands need to be drained into major waterways such as the Rio Hondo for improved productivity. Improved drainage is expected to increase yields by 20 to 40 %²⁷. In addition, improper natural resource management coupled with the emerging impacts of climate change has threatened the country's biodiversity and genetic resources. This situation therefore increases the need for Belize to place environmental issues at the center of agricultural and rural development.

The impact of climate change and the slow pace of adaptation affect the sector's ability to respond to increasing demands for food. It is for these reasons that strategic approaches must be made towards maximizing and utilizing total farm output. There is overwhelming evidence to suggest that productivity can be enhanced by reducing field losses. It has been estimated that one-third of the food produced is lost or wasted through post-harvest, processing, marketing, distribution, storage and consumption. This is particularly noticeable in the rural areas which produces a wide range of

²⁷MNRA/NAO/EU. 2013.

primary commodities e.g. cassava, potato, banana, vegetables etc. This is compounded by a lack of public policy support, inadequate storage, and processing, drying and marketing facilities.

In developing open economies like Belize, demand for varying types of food is driven by food prices, per capita incomes, economic growth, and urbanization and population dynamics. Although the country is a Net Food Exporting Developing State, the country was impacted by the soaring food price crisis of 2008-2009, with significant increase in the cost of imported agriculture and food products, including inputs. The country benefited from increased international food prices, and Belize's positive agricultural trade gap narrowed, given the country's situation as price takers with no influence on the world market. It is also clear that world food prices will continue to be volatile and remain at high levels in the foreseeable future. It follows therefore that, in the interest of sustaining food security and nutrition security, Belize must adopt a systematic approach and a formal mechanism to manage food price swings.

The current strategy of externalizing the costs of disasters on the assumption that the state or international aid agencies will cover them is unreliable and unsustainable. It is evident that Belize must focus on risk management in the agriculture sector and build capacity for risk reduction, preparedness, and response. The country cannot continue to rely on costly reconstruction and post-disaster external assistance. A new paradigm is needed that emphasizes reducing risks to enhance resilience to shocks. It must instead seek to formulate and implement an effective agricultural risk management program.

As mentioned earlier the cost of energy is major factor that impacts production cost and therefore, competitiveness. Notwithstanding, energy has a key role in economic and social development but there is a general lack of rural energy development policies in the national energy policy that focus on agriculture and food sector. Agriculture has a dual role as an energy user and as an energy supplier in the form of bio-energy. This energy function of agriculture offers important rural development opportunities as well as one means of climate change mitigation by substituting bio-energy for fossil fuels.

Energy efficiency will be critical for achieving the objectives under Pillar 2, in terms of promoting uptake of more efficient technologies. Under pillar 2 the relevance is to look at alternative sources of energy that is cheaper and that it comes from renewable sources therefore the focus will be in developing new technologies. It is also critical when considering the promotion of environmentally friendly and clean production practices under pillar 4.

National efforts at addressing issues related to climate change and risk management, including praedial larceny have however been constrained by:

- Limited incentives to producers to continue adapting good agricultural and soil conservation practices that increase resilience;
- Lack of established relief funds or some form of insurance scheme that assist small farmers in spreading out production risks and assist in recovering from natural disasters;

- Inadequate legislative frameworks for enforcement and stiffer penalties to address praedial larceny;
- Lack of effective traceability systems for stolen produce; and
- Limited application of modern technologies such as DNA and the use of drones to support efforts at addressing praedial larceny.

A4.14 Bio-safety, Sanitary, and Phytosanitary

BAHA is the main legal body responsible for food safety, sanitary and phytosanitary issues. The Ministry has a Biosafety Council that works in close collaboration with BAHA. The Pesticide Control Board promotes safe use and proper application of pesticides. Notwithstanding the operational responsibilities of these relevant agencies, there are deficiencies in the agricultural health and food safety system in Belize resulting from:

- Limited capacity of BAHA to carry out all necessary services to ensure the health of the agriculture sector;
- Insufficient resource allocations to BAHA from the public sector to allow the authority to adequately carry out its responsibilities, resulting in higher charges to the producers and agro-processors;
- The processes of BAHA, which are time consuming and excessively bureaucratic;
- Insufficient monitoring of imported and local products for pest and residues;
- Lack of a clear, unambiguous policy on GMOs that allows import of GMO goods while restricting its local production;
- Lack of a revised and updated Bio-safety Policy; and
- Insufficient grading, standards, SPS mechanisms and bio-security measures in place.

A4.15 Governance

The MOA has the overall responsibility for providing the framework for the development of the natural resources, agriculture and food and aquaculture in Belize that will make farming more sustainable and farmers more competitive. The Ministry establishes the strategic direction and agendas for development and implements these through well-defined plans, programs, budgets and governance systems and mechanisms. It prepares annual work plans and follows program budgeting.

The current portfolio of the MOA includes: Agriculture, Agro-industry, Aquaculture, Animals and birds, Belize Agriculture Health Authority (BAHA), Belize Marketing and Development Cooperation (BMDC), Markets (domestic), Banana Industry, Citrus Industry, Sugar industry, Cooperatives, Veterinary and Animal Health. Pesticide Control Board (PCB).

The MOA has a small but competent and committed team of professional management and technical staff whose operations provide the necessary platform for the execution of the Ministries' work and

the achievement of goal and objectives. This is being accomplished with the collaboration of other partners in development like CARDI, IICA, ROC Mission, BAHA, BMDC, SIRD, CREI among others.

The various programs of the MOA provide vital services that include:

- Daily route farm visits;
- Provision of breeding stock and breeding services of all major livestock species;
- Provision of grafted and non-grafted fruit tree seedlings;
- Support to the aquaculture development program;
- Identification of markets and conducting market studies;
- Development of new value-added products;
- Development of technical materials and technology packages and conducting training for farmers;
- Conducting research and other developmental activities;
- Organizing agriculture fairs and shows; and
- Implementing the programs and policies of the Ministry.

Despite the many strengths and the major efforts of the MOA, several weaknesses identified in the governance system and mechanisms include:

- Inadequate coordination with other ministries that have overlapping mandates for tasks, which increases cost of doing business e.g. issuing permits, excess bureaucracy, etc.;
- Inadequate integration and coordination among the MOA and other relevant public sector bodies, private sector, civil society and multi-lateral development agencies;
- Imbalances in supporting structures, human resources, and processes in the MOA with very weak operational linkages between strategies and annual budgetary planning and allocations;
- Imbalances in the composition of MOA expenditures, with a very large proportion of the budget allocated to establishment (salaries), and very little financial resources available as operating funds (which can provide direct services to clients) and for capital expenditures;
- Lack of an annual accountability forum to keep stakeholders and country informed;
- Limited documentation and reporting on results, achievements and expenditures;
- Limited or lack of M&E system to gauge the outcome and impacts of policy interventions in the agriculture and food sector;
- Insufficient coordination with other Ministries to ensure continuous dialogue with stakeholders;
- Insufficient coherence of policies of other Ministries that have a direct bearing on the Agriculture and Food Sector;

- Unclear policy on Genetically Modified Organisms (GMOs), which affects both access to technology and has trade implications;
- Archaic regulations that are constraints to the growth and development of the sector e.g. Cooperative Legislation;
- Limited or insufficient use of e-Government to expedite and simplify processes and reduce cost of doing business. This is expected to reduce corruption and inefficiencies;
- Limited facilitation and support from other public sector bodies for innovative enterprises and initiatives e.g. renewable energies such Jatropa; and
- Limited information systems that collect and systematize information necessary for evidence based decisions and M&E of policies, programmes, and plans.

ANNEX 5: LIST OF PARTICIPANTS

Public Sector:

No.	NAME	ORGANIZATION/BUSINESS
1	Margarita Gomez	Ministry of Education
2	Alan Genitty	Ministry of Education
3	Roberto Harrison	MNRA
4	Flint Wagner	MNRA Toledo
5	Rumile Arana	Central Bank of Belize
6	Belarmino Esquivel	MNRA
7	Antonio Cano	University of Belize FST
8	John Rivero	Directorate of Foreign Trade
9	Andrew Harrison	MNRA
10	Phillip Tate	MNRA
11	Leroy Almendarez	Director for Foreign Trade
12	Tennielle Williams	MNRA-PCPU
13	Trinidad Mendez	University of Belize
14	Clifford Martinez	MNRA-Belize
15	Gary A. Ramirez	MNRA-Research Unit
16	RoseliLisbey	MNRA-Policy Unit
17	Francisco Gutierrez	BAHA
18	Samuel Wagner	Press Office
19	Stephen Williams	UB-Micropropagation Lab
20.	Hugo Miranda	Co-operatives Department

No.	NAME	ORGANIZATION/BUSINESS
21.	Manuel Trujillo	MNRA C/Farm
22.	Hannah Martinez	Forest Dept
23.	Jair Valladarez	University of Belize, FST
24.	Shirley Middleton	OSI/Min of Finance
25.	Delilah Cabb Ayala	BAHA
26.	Robyn Daly	Min of Health
27.	Jerjett Thompson	Min. of Nat. Resources &Agric
28.	ShaheraMcKoy	Export Belize Beltraide
29.	Marcelo Windsor	Forest Dept.
30.	German Novelo	Forest Dept
31.	Orla Kantun Coleman	Foreign Affairs
32.	Endhir Sosa	BAHA
33.	Hugo Miranda	Co-operatives Department
34.	Tanya Santos Neal	NPAS – MFFSD
35.	Eugene Waight	NPAS – MFFSD
36.	Dennis Gonguez	Meteorology
37.	Elma Kay	UB ERI
38.	Ryann Cobb	MESTPU
39.	Lizandro Quiroz	Forest Dept.
40.	Miguel Sosa	Aquaculture Unit, Agric Dept.
41.	Nonato Canto	Pesticides Control Board
42.	Gareth Murillo	Dept. of Cooperatives, MNRA
43.	Lynelle Williams	The Nature Conservancy
44.	Nicole Zetina	BELTRAIDE
45.	Dominique David	BAM Project (EU)
46.	Duane Belisle	Min. of Fin. & Economic Dev.
47.	Densford Manger	MNRA - Toledo
48.	Flint Wagner	MNRA
49.	Andrew Mejia	MNRA
50.	Andre Logan	MNRA
51.	Miriam Serrut	PCB
52.	NeriBol	Aquaculture - MNRA
53.	Oscar Salazar	MNRA

No.	NAME	ORGANIZATION/BUSINESS
54.	Anita Ochaeta	MNRA
55.	Fay Garnett	MNRA
56.	Teresita Balan	MNRA
57.	Ina Iris Sanchez	MNRA CF
58.	Clifford Martinez	MNRA-Belize
59.	Francisco Xiu	MNRA-Belize
60.	Abraham Gonzales	MNRA-Belize
61.	Julio Escalante	MNRA
62.	Jose Novelo,	MNRA Liaison officer for Sugar Industry
63.	Alberto Gutierrez	MNRA
64.	Jose Tillett	MNRA
65.	Andy Che	MNRA
66.	Carlos Tzul	MNRA
67.	Margarito Leiva	Honey Producer
68.	Barry Palacio	MNRA Czl
69.	Francisco Gutierrez	BAHA
70.	Leonardo Eck	MNRA Orange Walk
71.	Franklin Padron	MNRA
72.	Emilio Perez	MNRA
73.	Elmer Osorio	Rural Development
74.	Federico Chi	MNRA
75.	Michael Pitts	Ministry of Health
76.	Hector Torres	Cooperative Department
77.	Yahaira Urbina	ERI
78.	ShaheraMcKoy	BELTRAIDE
79.	Dennis Gonguez	Meteorology
80.	Rasheda Garcia	Forest Department
81.	Victoria Cawich	Forest Department
82.	Ryan Cobb	MESTPU
83.	Ambrose Tillett	MESTPU
84.	Tennielle Williams	MNRA
85.	Julio Escalante	MNRA
86.	Lloyd Orellano	BBS

No.	NAME	ORGANIZATION/BUSINESS
87.	Hugo Miranda	Coop. Dept
88.	Isai Pech	Coop. Dept.
89.	Erla Kantun Coleman	Foreign Affairs
90.	Luis Verde	Foreign Affairs
91.	Edgar Silva	PCB
92.	Augustus Gilharry	Agric Department
93.	Franklin Padron	Agric Department
94.	Delilah Cabb Ayala	BAHA
95.	Silverio Marin	BMDC
96.	Shirley Middleton	Office of Supervisor of Insurance
97.	Azucena QuanNovelo	Central Bank
98.	Carlos Crawford	CBB
99.	LejiaMelannie Gideon	Beltraide
100.	ShaheraMcKoy	Beltraide
101.	Diana Hernandez	Beltraide
102.	John Rivero	DFT
103.	Phillip Tate	Statistician
104.	Sergio Garcia	Consultant
105.	Ricardo Thompson	MNRA

Partners in Development:

No.	NAME	ORGANIZATION/BUSINESS
1.	Jean Lowry	IICA
2.	D. Budhram	IICA
3.	Miguel Cheng	Taiwan Mission
4.	Anil Sinha	CARDI
5.	Yvette Alonzo	IICA
6.	Edwin Sosa	OIRSA
7.	Jorge A. Polanco	PAHO
8.	Alistair Macpherson	CEO, BLPA
9.	Max Ortega	IICA
10.	Maisoon Ibrahim	UNDP

11.	Vincent Little	FAO Barbados
12.	Denise Robateau	UNICEF
13.	Diane Wade-Moore	UNDP
14.	John Tesecum	Intern, IICA
15.	Una May Gordon	IICA
16.	Marcus Osorio	SIRDI
17.	David R. Tzul	CATIE
18.	Rebecca Foster	PANTHERA

Private Sector:

No.	NAME	ORGANIZATION/BUSINESS
1.	RudolfoCarcamo	Atlantic Bank
2.	Beth Roberson	Belize Ag Report
3.	Alvin Henderson	Royal Mayan Shrimp Farm
4.	Dottie Feucht	Belize Ag Report
5.	Ramon Frutos	Consultant – Galen University
6.	Luis G. Tzul	CGA (Citrus)
7.	Henry N. Anderson	CGA
8.	Gina Ochaeta	St. Francis Xavier Credit Union Ltd.
9.	Sybille Neunninghoff	IDB
10.	Veronica Manzanero-Majil	Citrus Research & Edu. Inst/CGA
11.	Lucia Ellis	NUMASA Wellness Res. Center
12.	Zilmar Dominguez	St. Francis Xavier Credit Union
13.	Gabriel Pop	Maya Mountain Cacao Ltd.
14.	HerminioSho Jr	Maya Mountain Cacao Ltd.
15.	Rupert Smith	Maya Mountain Cacao Ltd.
16.	George Guerra	Atlantic Insurance Co. Ltd.
17.	Luis A. Choco	TCGA
18.	Thomas Tillett	TCGA
19.	Albert Reimer	BGGA
20.	Henry Wolf	Western Dairies
21.	Armando Estrada	Western Dairies
22.	Daniel Koop	Export Committee

23.	Cornelius Neufeld	Sp. Lookout Co.
24.	Otto Friesen	Bel-Car Export
25.	Mark Noralez	Bel-Car Export
26.	John Carr	Banana Bank Ranch
27.	Hugh O'Brien	BGGA
28.	Dennis Usher	T.R.B.C.P.A
29.	Jose Che	T.R.B.C.P.A.
30.	Thomas Mas	T.R.B.C.P.A.
31.	Emily Stone	Maya Mountain Cacao
32.	Olivia Vasquez	Tilapia Selena
33.	Rosendo Canto	Maya Green Growers
34.	Max Garcia	Cayo Quality Coop
35.	Ivan Martin	Market Manager, Springfield
36.	Tobias Penner	Market Manager, Springfield
37.	Carlos Monterozo	Chairman Seven Miles Village
38.	George Guerra	Atlantic Insurance
39.	RudolfoCarcamo	Atlantic Bank
40.	David Padilla	QPP
41.	Raymond Barkman	QPP
42.	Abdala Bedran	Running-W Meats
43.	Alexandra Bedran	Running-W Meats
44.	Kim Aikman	BCCI
45.	AleidaColindres	Lino's Meats
46.	Allen P. Reimer	BCCI
47.	Dwaight Neal	BEST – SMRL-ISDF
48.	Wilbert Ramclam	BELAGRO
49.	Isabelle Gayot	BAL
50.	Jasmin Zetina	BTIA – OW Chapter
51.	Gilberto Vivas	FrutaBomba
52.	Celso Martinez	O.W. F.A.
53.	John Daniels	FrutaBomba
54.	Florencio Casillo	Green House Processing women's group
55.	John Reimer	Shipyard
56.	Johan Redecop	Little Belize

57.	Gerhard Wall	Shipyard
58.	Nellie Briceno	BTIA O/W Chapter, Prosperity Soy Sauce
59.	Mariela Ramirez	Soy Sauce Project, OW
60.	Noel Lisbey Jr.	-
61.	Valentino Shal	Consultant
62.	Wilfredo Galvez	Galen University
63.	Abe Friesen	Blue Creek
64.	Jason Reimer	Co-op/BABS
65.	Albert Reimer	Valley Ranch
66.	Edward Reimer	Ryma Farms
67.	David Hiebert	Caribbean Chicken
68.	Johan K Friesen	Caribbean Chicken
69.	Abe Dyck	B C Community
70.	Stanley Rempel	Circle R
71.	Oscar Alonzo, CEO	Belize Sugarcane Farmers Association
72.	Victor Cruz Jr.	Western Feed Service
73.	Sergio Dorado	Haney Farm (Big Creek Group)
74.	Sylvester Chavarria	-
75.	Luis Ruiz	CGA
76.	Sebastian Chavorria	-
77.	Oscar Alonzo, CEO	Belize Sugarcane Farmers Association
78.	Kent McKenzie	Melinda Road
79.	Michael Marin	Steadfast
80.	Leopoldo Burrera	Maya Center
81.	JustinoChiac	Maya Mopan
82.	JeviniroTush	Maya Mopan
83.	Martin Holnedd	-
84.	Peter Willoughby Sr.	SCV 20 Miles
85.	Luis G. Tzul	CGA
86.	Mark Wagner	Alta Vistas
87.	Eccleston Irving	CGA
88.	Edgar Woodye	Citrus Grower
89.	Augustin Cho	-
90.	Veronica Manzanero-Majil	CGA-CREI

91.	Tony Zabaneh	BGA
92.	Emagilda Bull	Citrus Grower
93.	Colin Langford	Citrus Grower
94.	Abraham Bull	Citrus Grower
95.	Lester M. Cabral	Tex Bel Citrus
96.	Robert Graham	Tex Bel Citrus
97.	Henry Anderson	CGA

NGO:

No.	NAME	ORGANIZATION/BUSINESS
1.	Kenny Cal	Ya'axche
2.	Lee McLoughlin	Ya'axche Cons. Trust
3.	Mauricio Mejia	WWF
4.	JaumeRuscalleda	Ya'axche
5.	Jennie Garcia-Saqui	GIZ-Selva Maya
6.	Mario Chavarria	Toledo Development Corporation (TDC)
7.	Valentino Shal	Praxis Advisory Group
8.	Lemuel Palacio	BEST
9.	Sebastian Cayetano	NGC/Southern Traditional Farmers
10.	Nana Mensah	SHI - Bze
11.	Rejiialtun	Humana People to People
12.	James Lord	TIDE
13.	Marcelino Maetrez	TCGA
14.	Thomas Tillett	TCGA
15.	Luis Armando Choco	TCGA
16.	BartoloTeul	Yaaxche
17.	Kenny Cal	Yaaxche
18.	Joe Villafranco	TIDE
19.	Jennie Garcia Saqui	GIZ – Selva Maya
20.	Mauricio Mejia	WWF
21.	Lemuel Palacio	BEST
22.	Jose Perez	APAMO

CBO:

No.	NAME	ORGANIZATION/BUSINESS
1.	Jose Maquin	Chair for Cooperative
2.	Candido Chun	SHI - Belize
3.	Alberto Chco	COOP
4.	Estevan Assi Jr.	SHI-Belize
5.	Cathy Escamilla	CZL Women's Progresso Pre-coop – Soy Sauce
6.	Maggie Escamilla	CZL Women's Progresso Pre-coop – Soy Sauce
7.	Albino Vargas	La Inmaculada CreditUnionLtd
8.	Saint Francis Xavier Credit Union	Saint Francis Xavier Credit Union
9.	Danny Hun	TIDE
10.	Froyla Tsalam	Tumul kin Centre of Learning
11.	Arturo Chal	COOP
12.	Veluciano Teul	Chairman Village
13.	Leonides Sanchez	TLPA
14.	P. Franklin Martinez	SATIM
15.	Abib Palma	Plenty Belize

ANNEX 6: MEMBERS OF THE POLICY TASKFORCE

Ministry/Organization	Representative	Alternate
1. Ministry of Natural Resources and Agriculture	Jose Alpuche, CEO (Agriculture) Milagro Matus, Policy Analyst, MNRA Roberto Harrison, CAO and FAO NC Phillip Tate, Statistician 11, MNRA Belarmino Esquivel, Director of Extension Ricardo Thompson, PAO MNRA (Chair of Taskforce) Delia Cunil (Secretary of Taskforce)	
2. Ministry of Forestry, Fisheries and Sustainable Development	Adele Catzim, CEO MFFSD	Edgar Ek Deputy Chief Environmental Officer
3. Ministry of Economic Development	Duane Belisle, Director of Policy and Planning Unit	Kimberley Westby, Economist, MED
4. Ministry of Labor, Local Government and Rural Development	Orlando Jimenez – Rural Development Officer	Ernest Banner, Coordinator of Rural Development
5. Trade, Private Sector Development and Consumer Protection	Dr. Leroy Almendarez , Director of Foreign Trade	ShaheraMcKoy, Director of EXPORTBelize, Beltraide
6. Private & Public Sector Dialogue	Amparo Masson, Director, Private and Public Sector Dialogue	
7. Cooperatives Department, MNRA	Gareth Murillo, Registrar of Cooperatives	
8. Food and Agriculture Organization	Jerome Thomas, FAO Rep Jamaica, Belize, Bahamas	

9. IICA	Ms. Yvette Alonzo, Agric. Economist and Policy Analyst Dr. DowlatBudhram, IICA Country Rep	Maximiliano Ortega, Specialist in Technology & Innovation
10. CARDI	Anil Sinha, Country Rep	Mr. Hector Reyes, Technical Officer
11. Development Finance Corporation (DFC)	Franklyn Magloire, Assistant General Manager	Renan Gongora, Manager, Credit Delivery Officer
12. Toledo Cacao Growers Association	Armando Choco, Executive Director, TCGA	Thomas Tillett, Technical Officer
13. Belize AgroProductive Sector Group	Dale Young, Executive Secretary of BAPS	

ANNEX 7: LIST OF CONSULTATIONS AND DATES

Initial	3rd December, 2013	George Price Centre, Belmopan
1st Consultation	30th April, 2014	Spanish Lookout, Cayo District
2nd Consultation	8th May, 2014	Punta Gorda, Toledo
3rd Consultation	14th May, 2014	City of Belmopan, Cayo District
4th Consultation	15th May, 2014	Ag. Depart, Central Farm, CayoDist
5th Consultation	21st May, 2014	Coastal Zone (Morning), Belize City
6th Consultation	21st May, 2014	Coastal Zone (Afternoon), Belize City
7th Consultation	22nd May, 2014	Blue Creek, Orange Walk
8th Consultation	27th May, 2014	Cane Farmers Assoc., Orange Walk
9th Consultation	28th May, 2014	George Price Centre, Belmopan
10th Consultation	29th May, 2014	BLPA, Belmopan
11th Consultation Creek	30th May, 2014	BAL – Shrimp Producers, Stann
12th Consultation	3rd June, 2014	LICU, Orange Walk
13th Consultation	6th June, 2014	CGA, Stann Creek
14th Consultation	5th June, 2014	SBDC Office, Belize City
15th Consultation	16th June, 2014	Banana Bank Lodge, Cayo District
16th Consultation	8th July, 2014	Gala Lounge, Orange Walk District
Validation	23rd January 2015	George Price Centre, Belmopan